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THE

AMERICAN FARMER.



"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." Virg.

Vol. VII.

BALTIMORE, MAY, 1852.

No. 11.

WORK FOR THE MONTH.

MAY.

No month known to the calendar, if we are to credit the descriptions of poesy and of song, is so delightful as this. Influenced by those charming pictures of its beauties, and of the sources of mental enjoyments which it is represented to bring with it, most young hearts bound with joy and gladness at its advent, and anticipate its coming, for weeks in advance, as a day that is to develop countless pleasures. Parties are formed, in anticipation, to hie to the woods to gather flowers; but alas! owing to the change of seasons, for many years past the woods have failed to yield their floral treasures, until long after the day for *Maying* had come and gone, and the maidens and their gallants, after miles expended in searching for the flowers which the winds of March, and the showers of April, were to have brought forth, have had to return to their homes travel worn and disappointed, reaping no other harvest than the realization of the truth of the proposition—that all calculations based on the past, looking to the enjoyments of the future, are predicated on a frail and uncertain tenure, when the seasons are concerned. But notwithstanding the seasons have changed, and are likely to change still more, for so long as the axe shall be employed in levelling the forests, so long will changes go on and the seasons be later and later, still it is always best to get our crops in as soon as the nature of circumstances will permit; for other things being equal, the early planted crops generally prove the most prolific.

Let us, then, turn our attention to those things which demand immediate attention

ON THE FARM.

CORN PLANTING.

The time has come over a broad surface of States, when the corn crop should be gotten in; and we trust that every corn-grower, where such is the case, will feel it to be his duty as it assuredly is his interest, to begin to plant his corn as near the *first* of the month as possible, and so make his arrangements, as that the whole will be completed before the *tenth* of the month, at farthest. Seasons may, and sometimes do occur, where a few days' delay do not operate as a serious evil; but such occurrences are rare. If we take the results of any

series of years as our guide, it will be found, that the early pitched crop is generally the most productive. Whenever the earth is warm enough to produce germination, be the location where it may, may be said to be the proper time to plant corn.—Speaking from our own experience, we feel justified in saying, that slight frosts do not materially affect the yield, even though they may nip the plant after it shows itself above the ground; for, from the vigorous nature of the roots, in the incipient stage of their growth, they possess that recuperative power, which enables them to overcome the disadvantage of such blights. If caught by frosts, the effect will be, to occasion a temporary suspension, or stunting; but not to destroy. However, after the first of May it is but rarely, indeed, that we have visitations of frost, of sufficient intensity to do injury to vegetation, and, therefore, it may be considered safe, on, and after that period, to get our corn, as well as almost every other crop, in the ground, and it should be our policy to do so, as we have before suggested, as near the beginning of the month as possible.

As we advised our friends last month, as well as the previous one, to provide ample supplies of manure for their corn crop, we are willing to hope that they have done so, and that most of their fields have been generously manured, ploughed deeply as well as neatly, harrowed thoroughly, so as to bring the soil to a fine tilth, and that their work of preparation was completed, by rolling; for the faithful execution of all these processes we believe to be necessary to success. The perfect preparation of the soil, we hold to be intimately connected with prolificacy in any crop—with corn indispensable. When we speak of generous manuring, we mean *broadcast manuring*; for, after the corn plant gets to be 8 or 12 inches high, all the food it derives from the earth, is from beyond the limits of the hill. While we are the advocates of general manuring—the application of manure throughout the entire surface,—we are also favorable to an application of a small quantity of some enriching compost to the hill. This brings us, naturally, to the subject of

TOP-DRESSING, OR MANURING IN THE HILL.

There is no plant that grows, which is more benefitted than is the corn, by slight applications of fertilizing matter to the hill. Such applications may be made at the time of dropping the corn—

after it is dropped and covered, and before it comes up,—or after it has come up, at the time of the first working. Better, however, to do it at the time of planting; but be it done at either of the periods named by us, the corn plants will make an economical appropriation of the enriching—of the *organic*, and *inorganic*, substances—of which such composts may be made; for there is no plant cultivated, that is more thankful for good fare, or which make a better use of it than does that of the corn, at every stage of its growth, and particularly when in its infancy. And by the bye, it is only in that stage that it can derive material benefit from hill manuring; as the moment the roots extend beyond the range of the hill, they have to imbibe their food from the soil between the rows, as their feeders are at the extreme points of the lateral roots, which extend, at all distances from the stalk, from one foot to four; and it is not reasonable to think, that these roots can participate in food which is behind them, far removed from the reach of their mouths.

Hill Compost.—As good a compost as can be formed to manure in the hill, we have found to be 10 bushels of *rotten dung*, or *rich mould*—or both—5 bushels of *ashes*, and 1 bushel of *plaster*; the whole to be thoroughly mixed together, and a handful applied to each hill of corn, at the time of dropping, or at either of the other periods we have designated. The quantities we have named will answer for an acre, and, if applied in, or to the hill, would be found greatly to accelerate the early growth of the plants—a matter of very great importance, for many reasons.

As we were very copious in our remarks last month, as well as the preceding one, upon manures, the culture of this crop, its wants, and its necessities, we will not recapitulate them here; but refer our readers to the March, and April numbers, for our views in extenso.

PROSPECTS OF THE CORN MARKET.

In 1847, we predicted that Corn would become more and more popular in Great Britain, as time was allowed to enable its virtues to be developed and better known; and we are pleased to find, that each succeeding year has served to verify our prediction; for the more and longer it has been used there, the more popular has it become for human food, as well as for stock feeding. For the first purpose, it is daily gaining favor upon the appetites of its consumers both in England, and in Ireland; and so it will continue, the longer and more it is used—for let what may be said about the superior nutritive properties of wheat bread—and analysis sustains all that has been said,—from *experience we do know*, that good corn-bread is as substantial a substance to work upon, as is bread made from any other kind of grain—and as a substance to fatten with, it is unequalled by any other grain. It is possible that oil-cake would elaborate *fat* faster, but, when formed, it is neither so solid nor so well flavored. The popularity of *corn-bread*, was for a time greatly depressed in Britain, at the onset, owing to the urgency of making shipments during the famine, not allowing time to subject the corn to the process of *kiln-drying*—a process indispensable to prevent the impairment of its quality during a transatlantic voyage. This is now, however, both understood, and acted upon; and Indian corn must, each year, increase in demand in the markets of Great Britain.

But there are other demands, and other markets,

that a few years must bring about. Already large quantities of corn are manufactured into *Starch*, and the demand for this purpose will increase every year.

We are no prophet—nor do we wish to set up any claim or pretension of the kind—but we now venture this opinion. *The period is not far distant, when the world's supply of Sugar, to a considerable extent, will be manufactured from corn meal.* It has already been demonstrated, that by submitting a pound of starch to certain processes and manipulations, and admixture with diluted sulphuric acid, that it will yield more than a pound of what is called *grape Sugar*,—and it is well known, that corn is rich in starch. So let there be a few successive years of scarcity in the Sugar crop, by reason of the failure of the *cane*, and Chemistry will step forth, and supply the deficiency, by converting the starch of corn meal into good merchantable sugar; for the processes are both simple and comparatively inexpensive; and, therefore, would assure fair profit; and we all know, that *profit* has an alluring virtue in it:—for the *dollar* has more potency—more witchery—in its power, than a trio of moral virtues rolled into one. We say this in no approving spirit; for we confess, that the influence and the power of sinister motives over the actions of mankind, give us more and more pain, as we approach nearer and nearer to the grave. But so it is,—let necessity drive men into the manufacture of Sugar from Indian corn meal, and thereby demonstrate its profitability, and its course will be onward; for revolutions do not go backwards—and particularly not, when lucre marshals them forward, and the desire of lucre stimulated by necessity. Sugar, the product of starch is termed, "*grape sugar*"—a kind not nearly so rich, as far as experiments have tested it, as *cane-sugar*, in saccharine matter; but in the present progressive stage of the science of chemistry, we cannot see anything to forbid the belief, that, by the adoption of some processes, unknown at present, of condensation, the difference in that principle may be overcome; for as "*necessity is the mother of invention*," we have a right to look to the resources of a science so rich in development's, as is chemistry, for the needful aid.

Oats.—This crop, most of the States, has already been seeded. There are, however, many places where it has not been gotten in, and all we have to say to farmers thus situated, is, that the sooner they are seeded the better. For the means and modes of culture, we refer to our article in our March number, page 298, as we have therein treated the subject very freely,—and will merely add, that a large crop of oats can only be raised where there is plenty of food in the soil, and that whatever else may be in the manure, that *ashes* should form a material part, as the oat crop is a heavy consumer of potash.

PUMPKINS.

Every farmer or planter should have his acre or so of pumpkins, as they furnish a large body of excellent food for fall use, and are valuable alike for hogs, milch cows, and other stock. When cooked and mixed with moderate quantities of meal, they are found eminently useful and fattening for hogs, when first penned up; while with an addition of cut straw, or hay, pumpkins and meal, make an admirable mess for milch cows, promotive alike of the quantity and quality of their milk.

The sooner they are got in this month the better. The nearer the first of the month that they are planted, the larger will be their product, and the greater the certainty of their escaping the frost. As pumpkins are of rapid and luxuriant growth, they require to be well fed.

The hills should be formed 10 feet apart. A shovelful of good rich manure should be spread on the ground, over that the hill should be formed, about 4 inches high, flat at top. In each hill 5 or 6 seeds should be planted at regular distances from each other about 1 or 2 inches deep. After you have planted the seed, strew over the hill a pretty free dressing of compost formed of 4 parts rich mould, 3 parts rotten dung, and 1 part ashes, and over that dust plaster.

When the plants come up and have passed the crisis of the bug that attacks and is so fatal to the pumpkin vine, thin out the vines, so as to leave but three in a hill, and these the most healthy and best situated.

As a preventive against the ravages of the striped bug, watch the coming up of the vines, and as soon as they do come up, treat them every morning, early, for two or three weeks, with the following mixture, which must be dusted over the vines while they are wet with dew. And we will here premise, that there is no use in beginning with the application, unless you continue it until you overcome the enemy. Take, in the proportion of one bushel of ashes, $\frac{1}{2}$ bushel of plaster, 1 peck of soot, 1 lb. of Scotch snuff, and 1 lb. of flour of sulphur; mix the whole thoroughly together, and with this mixture dust your pumpkin vines every morning until the bugs disappear. To make assurance doubly sure, each morning, while performing the dusting operation, all the bugs caught upon the hills of the pumpkins should be killed, or drowned in a piggion of water, which you should have near at hand; for after all, the best way of getting rid of them, is to catch and kill them.

MILLET.

If you anticipate a short crop of hay, sow a few acres of millet, to supply the deficiency. Good soil, light and loamy, heavily manured, if deeply ploughed, thoroughly harrowed and rolled, cannot fail to give you from 3 to 4 tons per acre. Seed per acre, $\frac{1}{2}$ bushel or 3 pecks. It makes excellent hay, while the grain is excellent as stock food, ground, or for chickens, unground.

Carrots, Parsnips, Beets, Mangel.—All these roots should be now drilled in. The sooner the better. Strain a point, and drill in an acre or half acre of each kind. For the mode of culture, we refer to our last volume, pages 342, 343, 344.

LUCERNE.

Have you a lot of good deep sandy loam, which has been recently limed, or in which lime naturally abounds? If you have, give it a liberal dressing of putrescent manure, plough the manure in as deep as you can, harrow thoroughly, lengthwise and then crosswise. This done, mix twenty lbs. of Lucerne seed with thrice the quantity of ashes, per acre, and sow them broadcast, harrow the seed in, and complete the work by rolling. If weeds should appear, have them picked out by children; keep stock off your patch this season, and the next you may cut it at least three times. Next fall, top-dress with 10 bushels of ashes, 4 bushels of bone-dust, and 2 bushels of salt, harrow the mixture in, and roll. If you treat your patch of Lu-

cerne in this way every second fall, you may calculate upon good yields of hay for 8 or 10 years, and that at the end of that time your land will be in a highly improved condition. But bear this fact in mind: the soil on which lucerne is grown must have lime in it.

CANTELEUPES, MUSK MELONS, WATERMELONS.

Plant these as near the first of the month as possible. Each kind should be from 300 to 400 yards apart, to prevent mixture. Plant 5 or 6 seeds in each hill, which should be six feet apart.

Manure.—Seven parts rotten dung, 1 part ashes, is as good a compost as you can form for them. They should each receive at least a shovelful per hill; after the seed are planted, the top of each hill should be dusted over with equal portions of a mixture formed of ashes and plaster.

Management of the plants.—When the plants first come up, dust them with the mixture recommended for pumpkins, and in the same way.

Culture.—The danger from insects being over, thin out the vines so as to leave three in the hill. Keep them clean from weeds and grass, and the ground open. If drought ensues, water them every second evening, just before sundown.

FIELD PEAS AND BEANS.

These should be planted the first ten days of this month.

ORCHARDS.

If the trees in your orchard have moss on their trunks, or the bark is in bad condition, have the trunks scraped, and then dress or paint them with a whitewash brush, with a mixture composed in the proportion of 1 gallon of soft soap, 1 lb. flour of sulphur, and 1 quart of salt.

DRAINING OF WET LANDS.

To apply lime, or manure, to wet lands, is really to throw money and time away. So, if you have any of this description, have them drained. If they are stiff and intractable now, the draining will break down their tenacity, make them much easier to work, much more, if not doubly productive, and make them susceptible to the influences of manure. If they are cold now, by drawing off the superabundant water, you will let in the atmosphere, warm up the soil, and render them at least two or three weeks earlier.

BROADCAST CORN.

If you desire to raise a large crop of green food to soil with, manure an acre or two near your barn, plough in the manure eight inches deep, harrow the ground lengthwise, and crosswise; then sow 3 or 4 bushels of corn broadcast, per acre, and finish by rolling, and you will be sure to be rewarded by a heavy crop.

SWEET POTATOES.

The earlier these are got in this month the better.

TOBACCO.

As there is a good prospect that Tobacco will command ready sales and fair prices, the coming season, all possible care should be paid to the preparation of the ground, and subsequent cultivation of the crop.

WORKING ANIMALS.

Feed these regularly and well; keep their stables well ventilated, clean, and well littered. Never let them suffer for water, have them curried or carded twice a day, and brushed with a brush, or rubbed with straw as often, in order that the pores of their skin may be open, and their hides clean.

MILCH COWS.

These should receive good treatment, full feeds of rich slops, in which cut straw or hay should be mixed; they should be provided with well littered dry beddings, of nights, and be regularly watered at each meal.

SALTING OF STOCK.

Stock of all kinds should be salted twice or thrice a week, or what we think would be better, receive, twice a week, an ounce or two of a mixture composed of equal parts of *oyster-shell lime*, salt, and *ashes*. For stock, we prefer *oyster-shell lime* to *stone lime*, because it contains a very notable per-centage of phosphate of lime, a substance eminently necessary to supply the wear and tear of old animals' bones, and to supply to young ones, the material for building up theirs.

JERUSALEM ARTICHOKE.

We have said so much in recent numbers concerning the growth of this tuber, that we shall content ourselves, for the present, by observing, that they may be planted up to the middle of this month. For their *value*, the *proper manure*, and *manner of culture*, we refer to page 391, current volume.

CLOVER.

In advance of the time for cutting clover, we will remind our friends, that the best time for cutting clover, is, when it comes first into bloom—that after being cut, it should remain five hours in the swath, then be thrown into cocks, and thus cured.

LIMING AND MARLING LAND

Although we have written much upon the subject of applying *lime* and *marl* to land, we are frequently desired in private letters, and in oral conversations, to state our views in relation thereto, and as it is a source of pleasure to us, at all times, to give all the information we may possess, that is calculated to advance the farming interest,—and as the present is a favorable time to apply lime and marl, we will state, *first*, in answer to a question by a subscriber in Virginia, who asks us, *what would be the best plan to apply lime to an "exhausted though generous high land soil, where it is not practicable to turn in green crops?"* and, as we presume, not practicable to give it a dressing of animal manure.

To this question we answer thus:—in the *first* place, if it were practicable to procure marsh or river mud—if the mud be salt, so much the better—we would make a compost with 20 loads of the mud, after being drained, and 25 bushels of lime, per acre, first slaking the lime with salt brine; place the substances layer and layer about, mix them thoroughly, and when so prepared, broadcast the mixture over the land, after it had been ploughed and harrowed, then harrow and cross-harrow the field, so as to incorporate the lime and mud thoroughly with the surface soil. The lime would act with energy upon the vegetable and animal matter in the mud of the compost, prepare it as food for the plants, and thus increase the first product of the soil. To prevent the loss of ammonia, we would sow a bushel of plaster, per acre, on the field, after the lime compost had been harrowed in.

Secondly. If the labor of composting was too great for us to accomplish, we would, in that case, slake the lime with salt brine, and, so soon as it fell into powder, we would spread and harrow it

in, first taking the precaution to have the land ploughed deeply, and thoroughly harrowed.

Thirdly. If time were allowed us to do so, we would make a compost under a shed, of *lime* and *salt*, in the proportion of 2 bushels of lime, to 1 bushel of salt; let it lie three months, to ensure perfect decomposition, and apply twenty-five bushels of the mixture per acre. Prepared according to this latter plan, and applied as suggested, the lime would act promptly upon the inert matters of the soil, without driving off any of the volatile and enriching gases. This plan of using lime on exhausted lands, we think the most judicious, because it acts with promptness, without injuriously interfering with any latent elements of fertility that may be in the soil; while the salt, through the decompositions it would undergo, would dispense *soda* and *chlorine* to the soil.

APPLICATIONS OF LIME TO THIN SANDY LAND.

Slake the lime with salt brine; when it falls into powder, mix with every 25 bushels of it, 10 loads of clay, layer and layer about; throw it into bulk, and let it remain two or three weeks. In the meantime, manure, plough and harrow the land, then shovel over the compost, so as to intimately mix the lime with the clay, and broadcast eleven loads of the mixture evenly over the surface of each acre, and harrow and cross harrow, and then roll, when the land will be fit to receive the crop which you may intend it for. If lime be thus applied to *thin sandy land*, ten loads of putrescent manure will actually perform more positive good, than would twenty loads applied without the addition of the clay, provided a bushel of plaster per acre, be sowed over the land.

APPLICATION OF LIME TO STIFF CLAYS.

To stiff clays, that may have been exhausted by long continued cropping, which may need *lime*, 50 bushels of lime may be applied, per acre. If *unslaked*, it will be the better of being slaked with salt brine. If *slaked*, we would mix 1 bushel of salt with every two bushels of lime, layer and layer about; let it lie in bulk, under cover, for three months, then shovel it over, and apply it to the land after it had been ploughed and harrowed, at the rate of 50 bushels of the salt and lime per acre, harrow and cross harrow it in, and finish by rolling.

APPLICATION OF LIME TO STIFF CLAYS, RICH IN VEGETABLE AND ANIMAL MATTERS.

To such land, double the last named quantity will be found beneficial; though, for present purposes, one-half the quantity would answer, and prove effective for several years.

APPLICATION OF LIME TO MOULDS.

To moulds, or loamy soils, in which there may be much vegetable and animal remains present, 25, 30, 40, 50 or 100 bushels may very advantageously be applied. To moulds or loams, which may have been exhausted by bad culture, 25 bushels as a first dressing will be sufficient.

To lands of the latter description, as well as to *thin sands*, heavy dressings of composts, formed of woods-mould, and leaves, marsh or river mud, composted with equal quantities of barn-yard and stable manure, will be found eminently serviceable, in reinstating the abstracted mould, as well as producing a just equilibrium in the soil, and re-establishing its absorbent and retentive powers.

OF THE USE OF MARL.

Where *marl*, instead of *lime*, may be used, as the

means of restoring the calcareous elements to the soil, we would apply double the quantities we have named for lime. And we believe, where it may be practicable to do so, that great benefit would be derived, from forming a compost of marl and marsh mud, in the proportion of 3 loads of marl to 20 of the mud, and dressing the land broadcast, after it had been ploughed and harrowed, with 25 loads of the compost to the acre, which should be harrowed, not ploughed in, and receive a bushel of plaster per acre, in addition.

We will here remark, that all lands after being limed, *should be set in clover, or grass*, as soon thereafter as its condition will allow of, as though lime must ever form the basis of all permanent improvements of soils, the culture of clover and the grasses, must be looked upon as its hand-maid, in every system which looks to continuous improvement; for, as *mould is the life-blood of soil*, its vitality cannot be long preserved, unless the culture of clover and the grasses enter into the system of rotation, or very heavy applications of putrescent manures be applied at short intervals.

It is our purpose now, to extract a few paragraphs from Prof. Johnston's "Agricultural Chemistry," to show his views in relation to the benefits of lime, as well as the quantities absolutely necessary. He asks:—

"Is LIME INDISPENSABLE TO THE FERTILITY OF THE SOIL?"—

And then adds:—

"It is the result of universal experience wherever agriculture has been advanced to the state of an art, that the presence of lime is useful to the soil."

"Not only is this fact deduced from the result of innumerable applications of this substance to lands of every quality, but it is established, also, by a consideration of the known chemical constitution of soils which are naturally possessed of unlike degrees of fertility."

"Thus sandy or siliceous soils are more or less barren if lime be absent—while the addition of this substance, in the form of marl or otherwise, renders them susceptible of cultivation. So clay soils in which no lime can be detected, are often at once changed in character by a sufficient liming. *Felspar* soils contain no lime, and they are barren—and the same is true of such as are derived immediately from the degradation of the serpentine rocks."

"*Trap* soils,—on the other hand—are poor in proportion as *felspar* abounds in them. Where *augites* and *zeolites* are present in large proportion in the trap from which they are formed, the soils are rich, and may even be used as marl. The only difference in this latter case, is, the lime is not deficient, and to this difference the greater fertility may fairly be ascribed."

"But let it be conceded, that lime is useful to or benefits the soil in which it exists, you may still ask—is lime *indispensable* to the soil?—is it impossible for even an average fertility to be manifested where lime is entirely absent?"

"There are two different considerations, from which we may deduce a more or less satisfactory answer to this question.

"1. The result of all the analyses hitherto made of soils naturally fertile, show that lime is naturally present. *The per-centage of lime in a soil may be very small*, yet it can always be detected when valuable and healthy crops grow upon it. Thus the fertile soil of the Marsh lands in Holstein con-

tains 0.2 per-cent of Carbonate of Lime; Salt Marsh in East Friesland contains 0.6 do.; Rich Pasture near Durham contains 1.31 do.

"But though the per-centage of lime in these cases appears small, the absolute quantity of lime present in the land is still large. Thus suppose the first of these soils, which contains the least, to be only six inches in depth, and each cubic foot to weigh only 80 lbs.—it would contain about 3.500 lbs. of carbonate of lime, upwards of a ton and a half in every acre. And this lime would be intimately mixed with the whole soil, in which state it is always effective in its operation. It may also be inferred with safety, that if the upper six inches contained this proportion of lime, the under soil would probably be richer still, since lime tends not so much to diffuse itself through, as to sink downwards into the soil."

"The results of all the chemical examinations hitherto made, in regard to the inorganic matter contained in the sap and substance of plants, indicate,—if not the absolute necessity of lime to the growth of plants,—at least that in nature all cultivated plants do absorb it by their roots from the soil, and make use of it in the aid of their growth. In so far as our practice is concerned, this is very much the same as if we could prove lime to be indispensable."

"The ash of the leaf and the bulb of the turnip or potato, of the grain and straw of our corn-bearing plants, and of the stems and seeds of our grasses, all contain lime wherever they are grown; and *most of them attain high health and luxuriance only where lime is easily attained.*"

"Grant, then, that lime *appears* to be, perhaps, virtually is, a necessary food of plants, without which their natural health cannot be maintained, nor functions discharged,—still the quantity which must be present in the soil to supply the food, is *not necessarily large*. Even in favorable circumstances, we have seen that the average crops during the entire rotation of four years, may not carry off more than 250 lbs. of lime from the acre of land, a quantity which even the marsh soils of Holstein would be able to supply for half a century, could the roots readily make their way into every part of the soil."

"Still we may safely hold, I think, that this quantity of lime at least is *indispensable*—if cultivated plants are to flourish and ripen. So much at least, must in practice be every year added to cultivated land, in one form or another, when the crops are in whole or in part carried off the land. Where it is not added, either artificially, or by some natural process, inferiority must gradually ensue."

We have quoted the preceding paragraphs from professor Johnston, to show that it is the *presence* of lime in the soil, *more than the quantity* of it, that we are to regard as the important consideration. In the case of the soil of the marsh lands of Holstein—lands celebrated for their fertility,—according to his calculation, there were but 3500 lbs. of the Carbonate of lime to the acre. This quantity, allowing 85 lbs. to the bushel, would give 41 3-17ths bushels per acre. The consumption by crops, in a four years rotation, of lime, he computes at 250 lbs., so that the quantity ascertained to exist in the soil of these fertile marsh lands, would supply the demands of the crops grown upon them for 56 years, according to our calculation. Or if we calculated the yearly consumption, as estimated by

professor Johnston, we have only an annual consumption of $62\frac{1}{2}$ lbs. per acre, being less than $\frac{3}{4}$ of a peck. We call attention to these facts, because the authority is highly reliable, and because it is now upwards of 17 years since we first suggested the idea, that a greatly reduced quantity of lime than that usually applied per acre, would answer for all present purposes. We then stated, that, in this connection, 25 bushels per acre would answer fully as well as would a hundred. That opinion was attempted to be controverted by letters from friends, at the time; but we have never seen any good and sufficient reasons, from that day to this, to induce us to change our opinion; and, as we are averse from farmers incurring unnecessary expenses, we have continued to recommend the application of smaller quantities than those recommended by writers generally, and as applied by practical farmers. We reasoned in this way. If 100 bushels will supply lime to 4 acres, and answer all present purposes, fully as well, as if it were applied to 1 acre, that it was true economy, to apply the lesser quantity, as the outlay for liming one's land, would be, in the first instance, so much less, and that, if the same money would supply the demands for this mineral, for 4 acres, as was usually expended on one, it would be unwise to incur so heavy an expenditure, as both principal and interest were virtually lost on three-fourths the sum expended, while four times the same quantity of land could be treated to lime for the same amount of money. We would here ask, why should farmers incur a large expenditure, when a small one will answer equally as well, for all that is practical and useful?

We know that there are many fertile soils which contain far greater per-centages of lime, ranging from less than one per cent., up to 8 and 9; but then these soils have in them, in sufficient quantities, all the other inorganic substances required by the wants of plants, and, therefore, we are not to refer to the large per centages of lime abounding in them as being the cause of their condition of fertility; for with the presence of the other inorganic substances, they would have been just as fertile—would have produced just as largely—had the quantity of lime been but one-fourth of one per cent. Their fertility is in our opinion, referable to the fact, that all the essential inorganic bodies existed in healthful quantities, and not because one superabundantly abounded.

In view of the facts and deductions which we have herein presented, we think the practice which has been pursued in France, for half a century, with the best effects, of applying 11 or 12 bushels of lime at the commencement of every rotation of 3 or 4 years, a good one. That quantity would more than keep up the essential supply of lime, while its power of reducing other bodies in the soil to their original elements, would preserve a healthful quantity of most of the other constituents needed as food by plants, whether of an inorganic, or organic nature, and especially would such be the case, if attention were paid to the cultivation of clover and the grasses, with the view of preserving to the soil its rightful portion of the raw material, to be formed into mould. Without mould, or the materials to make it, be present, no soil can be fertile—for say what we may, mould is as essential to a productive soil, as sound morals are to man, or generous food to a beast—the first gives elevation to the human character—the latter strength and a sleek hide to an animal.

WORK IN THE GARDEN.

MAY.

It is full time that every compartment, bed, and border, of the garden were occupied by some variety of vegetables, as every foot of ground within the enclosure should be made to contribute something towards the pleasure, the enjoyments, and the profits of its proprietor. Gardening is an art that may be considered to be one of the surest signs—one of the most unerring marks—of civilization, and may be said to be the one which, when skilfully conducted, dispenses a greater degree of comfort to man, than any other branch of human industry. But gardening can only be viewed in this enviable light, when it is pursued in a spirit which looks to the achievement of high and noble purposes—when it is followed with a determination to overcome every obstacle—every impediment to success—when every foot of ground in culture, is so improved and cultivated, as to ensure the greatest amount of blessings, and when the effect produced by its arrangements, are such as to strike the eye with admiration, and win the approbation of the judgment. In its origin, Gardening has the Omnipotent for its institution, and, without attempting a history of its rise and progress—for the materials are not extant, to enable one to give one—it is enough for us to know, that it is the first occupation pointed out to man by the Divine Author of his being, to induce him to cherish, and to hallow, and to call forth his warmest and profoundest interest and sympathy in its behalf.

When we speak of gardening, we do not mean simply the growing of vegetables—though that should form a prominent consideration. There are, however, other matters of importance, that should claim attention. The garden, itself, should be laid out with the triple object of convenience, profit and beauty. Its beds, borders and walks, and all its necessary appendages, should be so arranged and constructed, as to present to the sight, and to the senses, the two-fold assurance of pleasurable emotion, and practicable utility—its divisions and sub-divisions into compartments, should be such as to assure propriety of purpose, and beauty and economy of design. While every variety of vegetables should find a place in your garden—while all culinary and medicinal herbs should be found therein, so should fruits, shrubs, flowers and vines; for notwithstanding all the edibles, which abound in the gardener's calendar, may be grown in a garden, if attention alone be paid to the comforts of the inner man—if the necessities of life be the sole purpose of the culturist—and he should neglect the culture of flowers—if he fail to consult those pleasures, which reach the heart through the eye, and make it revel in delight,—we say, if he neglect these, his garden will still be incomplete, and he will have failed in the performance of a most important part of the trust confided to his keeping.

Having made these brief prefatory remarks, we will now endeavor to point as briefly to such things as should claim immediate attention.

Water-melons.—These should now be planted. With whatever nutritive manure the hills may be fertilized, a portion of ashes should be mixed. Seven parts well rotted manure, and one part ashes, will be about the right proportions to form the compost. A shovelful of the mixture to a hill will be about the right quantity.

Canteleupes and Musk-Melons.—These should be

planted at the beginning of this month, and be treated to the same kind and quantity of manure as are recommended for water-melons.

When the vines of water-melons, canteleupes, and musk-melons, first come up, they should be dusted over for several successive mornings, early, with a mixture formed of equal parts of *soot*, *plaster*, and *ashes*, as a precaution against bugs. Each of the substances will also act efficiently as manure.

Cymbilins or Squashes.—These should be planted in the early part of this month, and be treated precisely as recommended for water-melons, canteleupes, and musk-melons.

Each of the above fruits and vegetables, should be planted as distant apart as possible, as, should they be near to each other, a mixture of the farina will take place, and the quality of the fruit will, as a consequence, be deteriorated. We have known the cymbilins on an entire bed, to be ruined for eating purposes, by having a hill of gourds planted in the same bed. To preserve all the varieties of this family of plants pure, it is necessary that they should be planted a goodly distance apart. If they be not, deterioration will inevitably ensue.

Pumpkins.—These should be planted as near the first of this month as possible; but we cannot recommend them for garden culture; they should find a place beyond the garden fence, as closeness of location to melons, canteleupes, and cymbilins, are generally attended by admixture of the fruits,—and then, they are of such rank growth, and so coarse and rampant withal, as to impart an unsightly appearance to any garden in which they may be found.

They require the same manure and treatment as the other members of their family. They too, like the others are much annoyed by bugs. The long striped bug which so infest them is best destroyed by being caught and killed. Dusting regularly each morning, early, for a week or two, with a mixture of *ashes*, *plaster*, and *soot*, care being taken at the same time to kill all the bugs found on each hill, is a safe practice.

In times of drought, we have derived benefit from watering with a decoction made thus:—1 bushel of fresh horse dung put in a hogshead of water, together with 6 quarts of *soot*, 1 lb. of scotch snuff, half a pound of assafetida and 1 lb. of flour of sulphur, the four latter to be tied up in a bag and sunk in the water. This decoction, after 48 hours, will be fit to be given to the plants. Besides affording moisture, it is nutritive, and protective against insects. The hogshead may be filled up three or four times.

We have derived benefit from sprinkling train oil on our vines; but whatever substance may be used, it must be continued for several mornings, and until danger from insect enemies are past. The culturist must not falter in well-doing, but persevere to the end. Any cheap fish oil will answer for such purpose, and if the dregs of casks could be obtained, it would be preferable.

Gourds.—If you must have a gourd vine or so, don't plant them within three hundred yards of your garden. The time for planting is early in this month.

Of the soil for Water-melons, Canteleupes, Mush-melons, Cymbilins, &c., that is best, which approaches nearest to a deep, light, sand, moderately fertile. If well rotted stable or barn-yard manure cannot be had, 200 lbs. of Guano, 2 bushels of salt, and 10 bushels of ashes will do for an acre, the two first to be mixed together and ploughed in, or applied in

the hill, the latter to be broadcasted over the surface of the ground, and harrowed or raked in.

Cucumbers.—Get your cucumbers planted as early as possible—treat them as above advised for melons, &c.

Sweet Potatoes.—The time has come to get these in. The soil best adapted to them is a deep, light sandy one, lying well to the sun. Plant as early in this month as you can, and be sure to add some ashes and plaster to the nutritive manure you may use.

Corn for Roasting Ears.—Get your bed of corn for roasting-ears in as near the first of this month as you can. With your barn-yard and stable manure, mix a portion of ashes and plaster, spade that in deeply, taking pains to have the bed dug carefully and raked thoroughly, as the spading progresses. When your ground is ready, plant in hills 3 feet apart; have ready a compost formed of 4 parts mould and 4 parts well rotted dung, enough in quantity to give to each hill of corn one pint of the compost, to this compost add as much ashes and plaster as will give to each hill of corn 1 gill, incorporate the whole well together, and as you plant your corn give to each hill a pint of the compost. In dropping your seed corn in the hill, be careful to separate the grains, so as to give room for the expansion to the roots and stalks. When the corn plants are up and of a size to be worked, hoe your ground neatly, cleaning out all the grass and weeds from around them, hoe between the rows, thinning out the plants so as to leave three stalks to each hill, then give the hills a dusting composed of 6 parts *ashes*, 1 part *plaster*, and 1 part *salt*. Repeat this working at intervals of 10 days, and you cannot fail to have a good and early crop of roasting ears, provided the putrescent manure you may have used broadcast, and spaded in, was good, and dispensed with a generous hand.

To prolong your supply of roasting ears, plant a few rows every week up to the 20th of June.

Early Cauliflowers.—Earth up the stems of these as they may need working. Should the weather be dry, keep the earth well stirred, and be careful to have the plants watered every few days. When they shall have flowered, and the flowers become of sufficient size to need it, have a few of the larger leaves broke down to protect them from the sun and rain.

Planting out Cauliflower Plants.—If your cauliflower plants are of sufficient size, plant them out, as we advised last month. Recollect that they require plentiful feeding, and, therefore that you must manure highly, and prepare your ground by deep digging and thorough pulverization. Then sow seed for your autumn crop.

Broccoli Plants.—Set out your Broccoli plants, and sow seed for a late crop.

Cabbages.—Give your cabbage plants that have been set out a good dressing with the hoe. And set out what plants you may have ready for later crops. If the weather be dry, water freely and often.

Sow seed of a few of the earlier varieties for autumn use, to succeed the plants already set out, and those ready to be set out. About the middle of the month you may sow seed to raise plenty for your main winter supply.

Borecole.—Sow seed of this for winter and spring use.

Peas.—Plant a few rows of peas to succeed the earlier planted.

Lettuce.—Set out your lettuce plants for heading,

and sow more seed every ten days throughout the month.

Kidney Beans.—Plant your main crop of all kinds of beans of this family.

Lima, and Carolina Beans.—These should be got in early this month, and as no garden can be said to be complete without them, every owner of a garden should have a bed occupied in their growth. They delight in a deep, light, tolerably fertile soil, which should be moderately manured.

Radishes.—Sow the seed of these every 7 or 10 days, so as to have them successively, and crisp.

Spinach.—Sow spinach seed every ten days during this month. A deep moist loamy soil suits it best.

Carrots and Parsnips.—Drill in your main crop of these for winter use. Clean out your earlier planted ones—if you have any—and make it a point throughout the season, to keep your carrots and parsnips clean from weeds and grass, and the earth at all times open, and see that they do not stand too close together in the rows.

Celery.—If you have plants, set them out. Then sow seed to raise plants for your fall and winter crops.

Beets.—Weed and hoe your early beets, and drill in seed for your main crop. A deep sandy loam suits them best, which should be manured with a compost formed of 4 parts well rotted manure, 3 parts wood mould, and 1 part ashes. After you have drilled in your seed, dust the drills with a mixture of equal parts of ashes and plaster.

Onions.—Weed out your onions, and, if not already done, thin them out so as to stand 3 inches apart. In working them, avoid hilling the bulbs.

Early Turnips.—Hoe your early Turnips—thin them out so as to stand 8 inches apart. But if you were not so provident as to take our advice last month, and thereby failed to sow a bed of them, do so within the first week of this month.

Salsify.—Sow a bed with seed of this excellent root. A dozen drills will give a supply for a family.

Red Peppers.—Sow seeds of these, of sorts.

Tomatoes.—Seeds of these should be sown early this month—the first week if possible—for a late crop.

Egg Plant.—If you neglected to do so last month, prepare a bed on a warm border, and sow some seed of this excellent plant the first week of this month, the sooner the better. If you have plants, set them out about the middle of the month.

Endives.—Sow seed of these for an early crop.

Okra.—Sow your main crop of okra the first week in this month.

Nasturtiums.—You may still sow Nasturtium seed.

Parsley, Thyme, Sage, and all other pot herbs seed, may still be sown, or the slips and roots set out, provided, in times of drought, you have attention paid to watering them.

Seed Plants.—The stalks of your seed plants should be secured.

Annual and Biennial Flower Seeds.—Sow some seed of different sorts of these the first week of this month, so as to prolong your blooms.

Destruction of Weeds.—Make the extirpation of weeds and grass the law of your garden—make it a punishable offence for either to go to seed within its fence.

Watering.—In times of drought your garden should be watered every evening, or every other

evening at farthest. If you give to your cabbages, cauliflowers, and Broccoli, weekly waterings of soap suds, they will delight in the diet and grow vigorously.

In closing, let us enjoin it upon the *Ladies* to form the resolution now, of having all the productions of their gardens and dairies, as well as household manufactures, exhibited at the next *Fair of the Maryland State Agricultural Society*. At the late celebrated Fairs in England, the exhibitions of fruits, vegetables, and flowers, &c. were chiefly made by the wives and daughters of the gentlemen farmers, —among whom were found the descendants and kindred of Dukes, Peers and Lords, who, not only bore off many of the most valuable premiums, but as women ever do, imparted interest, conferred dignity, and infused a charm to each and every exhibition, wherever they were present.

PLASTER AND LIME.—Mr. J. M. Nesbit of Lewisburg, Union County, Pa., in the last Patent Office Report, in speaking of the effects of Plaster on his land, makes these remarks:

"After a number of experiments, we are satisfied that the effect of Plaster is completely neutralized by the lime previously applied to the same soil. How long this result will take place after the lime has been applied to the soil, our experience is of too limited a character to determine; but we have observed the same effect after a lapse of five years."

The experience of Mr. N. is different from that of most persons who have used plaster. Its effect is most marked on such lands as have been limed, as far as our experience goes; and such is the result of most farmers who have used the two materials on the same land. There is certainly nothing in the lime to interfere with the operative effect of plaster. It may be, that his lands abound with the salts of iron; if so, the effect of the lime would be, to "combine with the acid and form gypsum," so that in applying lime, he rendered the application of gypsum unnecessary, as that would be provided by the union between the sulphate of iron and lime. In soils, however, not thus conditioned, lime and gypsum would be found eminently serviceable, the latter furnishing sulphuric acid to the plants, a substance essential to their growth, forming as it does, one of their indispensable constituent elements, besides performing an important office, in the separation of the silicates of the soil, and thus preparing them to become the food of the growing crops.—*Ed.*

WORMS IN SHEEP'S HEADS.—A writer in the "*New England Farmer*," under the signature of "M. C. S." gives the following remedy for the removal of worms from the heads of sheep: ●

"The most effective remedy that I have ever known, is the following:—Take honey diluted with a little warm water, a sufficient quantity, and inject it into the nose freely, with a 4 oz. syringe. The worm will leave his retreat in search of this new article of food; and when once in contact with the honey, becomes unable to return, and slides down the mucus membrane. Then, (say 2 or 3 hours after using the honey) give the sheep a little snuff or cayenne pepper, and the effort of sneezing, will place the worm beyond the chance of doing harm. Some of our best farmers have tried this remedy long enough to establish its merit."

ANALYSES OF HORSE DUNG AND URINE —PLAN FOR MAKING A VALUABLE MANURE— VALUE OF CLOVER AND GRASSES —HOW TO APPLY LIME.

NOTTOWAY Co. VA., April 8, 1852.

To the Editor of the American Farmer—

I have been a subscriber and a reader of the "Farmer" for several years, and am indebted to it for much valuable information on the science of agriculture. I have observed with pleasure the prompt and full replies which you have always given to inquiries addressed to you by your correspondents and patrons. It is with but little reluctance, therefore, that I make the request that you will publish in your next number, if the files of your office or library will enable you, "a correct analysis of the dung and urine of the horse." My object for wishing to obtain this analysis is, that I may have the data for the formation of an opinion as to the practicability of making at my stable a concentrated manure which may be similarly applied and will compare well in its effects with Guano.—The plan which has suggested itself to my mind is this: To alter my horse stalls in such a manner that the urine may be collected and preserved. Let it then be the duty of the hostler every morning to get up the dung (free from all litter) which may be dropped the night and day before, and place it in bulk under a convenient shed. When so placed let a small quantity of plaster be sprinkled over and then a slight covering of mould from the woods—a few loads of which may be kept at hand. The urine, as it may be collected, should be sprinkled over this bulk from the nose of a watering pot, so that it may be slowly absorbed. To every 25 or 30 bushels of this compound I would add, and mix thoroughly, 3 or 4 bushels of bone-dust and the same quantity of ashes, and such mineral salts as the analysis above referred to would show the excrement of the horse to be deficient in. If by this process a manure half as effective as Guano could be made, there would be a great saving to the farmer, for the ingredients which it would be necessary to purchase, can be obtained, I suppose, for 6 or 8 dollars to the ton. What say you, Mr. Editor, to the plan?

Reply by the Editor of the American Farmer.

We comply with the request of our esteemed correspondent with pleasure; and we beg permission to assure him, that among the pleasant duties of our vocation, the responding to inquiries is among the most pleasant, as it affords us the gratifying proof that the spirit of inquiry is abroad, and that we know must lead to improvement—to that kind of improvement which must elevate agriculture to the dignity of being the most honored of the sciences.

ANALYSES OF HORSE DUNG.

Analysis by Girardin.		Analysis by Bousingault.	
Water	78.36	Water	75.31
Matters soluble in water	4.34	Geine	20.57
" " in alcohol	2.60	Salts	4.02
Vegetable fibre	12.86		
Salts	2.34		

The organic portion of the geine gave

Carbon	9.56
Hydrogen	1.26
Oxygen	9.31
Nitrogen	.54

Upon the above Dana remarks:—

"Horse-dung quickly ferments. It should be immediately removed and composted with cattle-dung or sprinkled with plaster. It loses in a month, at least one-third of its weight by fermentation."—"Expressing the value compared with cow dung, we have—

Geine	27.
Salts	.96
Water	71.20

The geine, then, is nearly double that in cow dung, and the salts, which are mostly phosphates of lime, magnesia and soda, are about the same. If the nitrogen is regarded, it is found about 50 per cent. greater than in cow dung. Hence during the chemical actions of the production of ammonia and nitrates, if the heat is in proportion to that action, we may possibly assign a reason, why horse dung is a hotter manure than cow-dung. The nitrogen in horse dung is about $\frac{3}{4}$ of one per cent., or this manure contains, in 100 parts:—

Geine	27.00
Salts	.96
Carbonate of ammonia	3.24

But though horse-dung is considered as a hotter manure than cow dung, this is true of cow dung only in its fresh state. Fermented horse dung is really of less value than cow dung. This is the voice of experience. Thrown out with the litter, and moistened as it is with the little urine, compared with that of cattle dung from the barn, it rapidly ferments and decays. By the time the manure has fermented, so as to be converted into a uniform mass of muck, it loses at least nine-tenths of its weight, and nearly two-thirds of its nitrogen has disappeared. Hence, without care, horse dung rapidly loses its value. Now this quick heating is owing to the ready decomposition of the dry droppings; and if these are kept properly moistened, a manure is produced when the horse dung is half rotted, which is fully equal to cow manure. It has ever required much management to get good yard-manure from horse stables. The pile should be broad, well trodden down, and kept constantly moist with water. Each layer, as it is formed, should be sprinkled with a little ground plaster.

All the water which runs from the heap should run into a pit and be mixed with a little plaster, and returned upon the pile."

Dr. C. T. Jackson, made an analysis of horse dung—500 grains dried at a heat a little above that of boiling water, lost 357 grains, which was water. The dry mass, weighing 143 grains, was burned, and left 8.5 grains of ashes, of which 4.8 grains were soluble in dilute nitric acid, and 3.20 insoluble. The ashes being analyzed, gave,—

Silex	3.2
Phosphate of lime	0.4
Carbonate of lime	1.5
Phosphate of Magnesia and Soda	2.9

8.0

It consists, then, of the following ingredients:—

Water	357.0
Vegetable fibre and animal matter	135.0
Silica	3.2
Phosphate of lime	0.4
Carbonate of lime	1.5
Phosphate of Magnesia and Soda	2.9

500.0."

ANALYSIS OF HORSE-URINE.

Boussingault gives the following as the constituents of the liquid evacuations of the horse:—

Carbon	4.46
Hydrogen	0.47
Oxygen	0.40
Nitrogen	1.55
Salts	4.51
Water	87.61

For fuller details as to the value of "urine as a manure," we refer our respected correspondent to our *February* number, p. 269, and to our *April* number, pages 229, 230, and would advise him whatever else he may put into his compost, *not to omit, plaster and salt*, as by their use, if judiciously mixed up with it, he will save all that contains volatile elements in the materials he may use—and that, by all means he should appropriate whatever human urine that may be made about his homestead to his dung pile, as in every pound of it there is that that will grow a pound of wheat. As he has asked our opinion of his proposed plan of making manure, we say that we highly approve of it, and can assure him in all frankness, that the addition of bone dust will greatly enhance its value. And we have no hesitation in saying, that we believe he will find it, if he keeps it pretty well saturated with urine mixed with plaster, equally as effective, and more lasting than guano, for we feel very certain, that manure thus prepared will contain as much ammonia and phosphates as are needed to preserve the plants in a vigorous and healthful condition.

We never have, and never will advocate manuring for a single crop—we go for so manuring, as that the soil will vigorously sustain a *rotation of crops*, and leave the soil at the end of it in an improved condition. But to effectuate this object, *clover and the grasses*, must be held as an important branch of the rotation; for of a verity, provision must be made to keep up the supply of mould in the soil, and there is nothing better calculated to attain this end than the means we have suggested. But to grow good crops of clover, or grass, it is essential, that lime be in the soil. If not naturally there, the means of placing it there are of easy attainment. Dressings of lime, marl, or ashes, will supply the deficiency—and for all present benefits, large dressings are not absolutely necessary of either. To encourage the prompt action of lime, it ought, we believe, to be slaked with salt brine, made strong enough to float an egg or potato, and when broadcasted over the surface of ploughed and harrowed ground, should be harrowed in, to bring it into contact with the inert matters, or organic matters in the soil.

A SUGGESTION TO THE STATE SOCIETY.

For the American Farmer.

MR. EDITOR:—Liebig observes, very properly, that "the continued existence of all living beings, is dependent on the reception by them of certain substances, which are applied to the nutrition of their frame. An enquiry, therefore, into the conditions on which the life and growth of living beings depend, involves the study of those substances which serve them as nutriment, as well as the investigation of the source from whence these substances are derived, and the changes which they undergo in process of assimilation;" and thus we find that a knowledge of agriculture, requires an acquaintance with Vegetable Physiology, with Ge-

ology and Chemistry. From Vegetable Physiology we learn the role of those organs by which plants are placed in connection with the earth and air—we learn how the food of plants is absorbed, how it is carried to the leaves, and how it is here acted on and converted into sap, and how this sap is circulated, and supplies the materials for the formation of gum, fecula, sugar, woody matter and other vegetable productions. The connexion of Geology with agriculture is thus pointed out by Mr. Richardson: "the cultivation of the earth is in like manner benefitted by that insight into the structure of the globe, which geology is enabled to supply, for as the superficial soil is usually derived from the disintegration of the rock beneath, an acquaintance with the nature and chemical composition of those rocks cannot but prove of indispensable utility in pointing out the most successful mode of cultivation. Those lands are most productive and least liable to exhaustion, which contain a due admixture of the three earths *clay, flint, and lime*; but as the instances are comparatively few in which nature has bestowed the three substances in unison, it is the study of the scientific agriculturist to supply the deficient material." The number of books published on Agricultural Chemistry, sufficiently attest the intimate connections between Agriculture and Chemistry. Now, Mr. Editor, my object is to suggest through you to your Agricultural Society, the propriety of having at the next October meeting, a lecture delivered on the subject of the connexion of these three branches of study with the practice of agriculture, for I feel that the attention of agriculturists will be more immediately directed to them in this way than in any other, a consummation, you will agree with me, to be wished for.

Yours, very truly,

BLUE RIDGE.

Fauquier, Va., April 6th, 1852.

[We recommend the above suggestions from an influential agriculturist of Virginia, to the Executive Committee of our State Society, to meet on the 5th inst.—Ed.]

INQUIRY AS TO THE MODE OF BURNING WOOD FOR ASHES—ANALYSES OF THE ASHES OF VARIOUS KINDS OF WOOD—DO. OF GRAINS—VALUE OF ASHES, HOW TO DISSOLVE BONES, &c.

THORN HILL, ORANGE CO. Va. }
March 29th, 1852. }

To the Editor of the American Farmer—

Enclosed you will find \$1, for which you will send me the 8th vol. of the Farmer. I have read scarcely a number of the 6th or 7th volume but has been worth the subscription price of your paper for one year.

I will take the liberty of asking a little information of you on a subject in which I hope you will feel interested enough to afford an answer. It is with regard to ashes and bones. In most of your recipes for making composts, and directions for improving "worn-out lands," you recommend ashes as one of the component parts. Now where are we to get so many ashes from? Can you tell me how those who burn ashes expressly for the pot-asheries, put up their wood piles or kilns? (1) As their object is to obtain the most ashes from the smallest quantity of wood, I should presume they do not burn it in the open air, as a large per cent. of the ashes would be driven off by the heat of the

fire. There are many of us who, in clearing large new grounds, burn up a good deal of wood and all the brush, when we have no gullies to put them in. Now, if there is any way to burn these log heaps, so as to obtain a larger quantity of ashes, we would be glad to know it, as all farmers in this section of country prize them very highly.

Have you ever succeeded in dissolving bones from $\frac{3}{4}$ to an inch square, with half their weight of sulphuric acid? So far, I have not succeeded in dissolving any that would not pass through a $\frac{3}{8}$ sieve. As I have not used but one carboy of acid, I cannot tell whether the fault be in the acid or not. (2)

What can sulphuric acid, by the carboy, be bought for in Baltimore, and of whom? (3) I think its use cannot prove profitable at 7 cts. per lb.

I may, hereafter, give you a paper on the comparative value of guano, ground bones, and bones dissolved in sulphuric acid, provided I can conduct my experiments with as much accuracy as I wish. (4)

I am, with much respect,

Your obt. servant,

JAMES W. GRAVES.

N. B. I induced one to send for your paper last year, and hope to induce two, this. (5)

Notes by the Editor of the American Farmer.

1. We are unacquainted with the plan pursued by those engaged in burning wood for the ashes, to be converted into potash; we would, therefore, be thankful to any of our subscribers, who may have a knowledge of it, to give us a communication upon the subject, as we should be pleased to be able to afford the desired information to our esteemed correspondent.

In the meantime, we will give the following table from *Berthier*, to show the comparative value of ashes, made from several kinds of wood.

	Oak.	Lime.	Birch.	Pitch.	Scotch Pine.	Fir.	Beech.
Silica	3.8	2.0	5.5	13.0	4.6	5.8	
Lime	54.8	51.8	52.2	27.2	42.3	42.6	
Magnesia	0.6	2.2	3.0	8.7	10.5	7.0	
Oxide of iron	—	0.1	0.5	22.3	0.1	1.5	
Oxide of Manganese	—	0.6	3.5	5.5	0.4	4.5	
Phosphoric acid	0.8	2.8	4.3	1.8	1.0	5.7	
Carbonic acid	39.6	39.8	31.0	21.5	36.0	32.9	
Carbon	—	—	—	—	4.8	—	
	99.6	100.	100.	100.	99.7	100.	

Sprengel gives the following as the result of three analyses made by him of as many kinds of wood:—

	Red Beech.	Oak.	Scotch Fir.
Silica	5.52	29.95	6.59
Alumina	2.33		
Oxide of iron		8.14	17.03
Oxide of Manganese			
Lime	25.00	17.38	23.18
Magnesia	5.00	1.44	5.02
Potash	22.11	16.20	2.20
Soda	3.32	6.73	2.22
Sulphuric acid	7.64	3.36	2.23
Phosphoric acid	5.62	1.92	2.75
Chlorine	1.84	2.41	2.30
Carbonic acid	14.00	12.37	36.48
	100.	100.	100.

Having given the constituents of the ashes of several kinds of wood, we give also the following table, showing those of several kinds of grain, which will show why ashes influence the growth of crops. Independent of their alkaline elements, which act upon the inert vegetable matters in the

soil—independent of their action upon the silicates of the soil, in preparing them for absorption by the spongioles and rootlets of the plants—ashes contain all the inorganic substances which go to build up the inorganic portions of the structures of every plant that grows, and hence their value as a component part of the compost heap—hence their value as a top-dressing to lands which may have become exhausted of the more soluble inorganic substances that form parts of every soil that may have been originally fertile.

Sprengel gives the following analyses of

	Oats.	Barley.	Wheat.	Rye.
Potash	15.2	3.4	0.6	1.2
Soda	trace.	0.9	0.8	0.4
Lime	2.6	10.5	6.8	6.4
Magnesia	0.4	1.4	0.9	0.4
Silica	80.0	73.5	81.6	82.2
Alumina	0.1	2.8		
Oxide of iron	trace.	0.2	2.6	0.9
Oxide of Manganese	trace.	0.3		
Phosphoric acid	0.2	3.5	4.8	1.8
Sulphuric acid	1.4	2.2	1.0	6.1
Chlorine	0.1	1.3	0.9	0.6
Carbonic acid	—	—	—	—

100. 100. 100. 100.

All the cultivated plants require, as parts of their food, every substance that is found in Ashes; some partake more largely of one particular kind, than do others, but they all require the same kinds. According to *Letellier*, the ash of the *Indian Corn* gave of

Potash and Soda	20.8
Lime and Magnesia	18.3
Phosphoric acid	50.1
Silica, &c.	.8

100.0

Fresenius and *Will* give the following as their analysis of *leaf Tobacco*.

Potash	30.67
Lime and Magnesia	33.36
Sulphate of Lime, (plaster)	5.60
Chloride of Sodium (common salt)	5.95
Phosphates,	6.03
Silica	1.39

100.00

We have said that we are not conversant with the plan of burning wood by the manufacturers of potash, but we think that the loss in burning, deprecated by our correspondent, might be obviated, by covering the piles of brush he speaks of with clay. This would not only prevent the blowing away of the ashes by the wind, but would be the means of saving the Carbonic acid, also, a most valuable element of manure, while the ashes made from the burnt clay would act as a valuable auxiliary to the ash heap, both in quantity and kind. If in addition to the brushwood, twigs, leaves, and weeds, were added, the quantity of ashes would greatly be increased, as these yield more ashes than do hard wood.

We are averse from cutting down wood solely for the purpose of obtaining ashes; we say this, though we confess, we are a most honest believer in the virtues of ashes as a manure; but at the same time, we think that the brushwood, refuse of the woods, and all vegetable refuse matters, might, with decided profit and advantage be so appropriated.

2. We have succeeded in dissolving bones which we broke with the back of an axe, with *one-third* of their weight of Sulphuric acid, into a pasty mass; we divided the sulphuric acid into three parts, added to each three parts water to one of sulphuric acid, mixing each portion of the acid as we used it. This we poured over the bones, slowly, stirring them well all the time. After an interval of three or four days we mixed a second third portion of the acid, with three times its volume of water, poured that slowly over the crushed bones, stirring them well at the time, so as to incorporate them thoroughly with the diluted sulphuric acid, and after the lapse of three or four days more, we added, in the same way, the remaining third of the acid, diluted with water as before stated, stirring the crushed bones while doing so. At intervals during the process of decomposition, we repeatedly stirred the mixture so as to ensure an equal diffusion of the acid through the bones; and found no difficulty in dissolving them.

For *prompt action*, dissolved bones are decidedly best, as the phosphoric acid is thereby immediately let free; but for *more permanent effects upon the soil*, we think they would be found more efficacious, if the incipient stage of decomposition was simply produced, and this may be brought about, by putting them up in bulk with twice their quantity of ashes, and an equal quantity of salt as the bones. The bones to be previously moistened with water, and mixed layer, and layer about, with the ashes and salt. After being placed in bulk, the heap should be watched, by thrusting a stick into different parts of it. If, when withdrawn, the stick felt *very hot*, the heap should be shoveled over, to repress the heat, and prevent charring, as that would drive off the volatile parts of the animal portions of the bones, and thereby occasion loss of a very valuable element. The object should be, to induce an incipient stage of decomposition, not to burn the bones.

3. *Sulphuric acid* we have seen purchased in Baltimore within the past month, by the *Carboy* at 2½ cents per pound. In a large quantity, we presume, it could be had for less. It can be had of any of the manufacturers here, or of any of the wholesale druggists. We believe it is manufactured here by the Messrs. Ellicott, Mr. Chappell, Mr. Kettlewell, and Mr. Davison, and as for the names of the Druggists, who sell it in Baltimore, they are almost as numerous as are the leaves upon a *dwarf-pear-tree*—verily, their names are “too numerous to mention.”

4. We shall be pleased to receive from our correspondent, his promised communication upon the comparative value of guano, ground bones, and bones dissolved in sulphuric acid; but we trust, on second thought, that he will withdraw his *promise*, and give us the results of his experiments “any how.”

5. We thank him, in all sincerity, for the interest he has taken, in adding to our subscription, and trust that his disinterested example may stimulate all our other subscribers to bestir themselves in similar labors. Each one, we are very certain, could, with very little exertion, increase our list, and we are as certain, that they have that kindness of feeling towards us, that will prompt them to action. The desire of improving the Agriculture of our country is, with us a passion; but still that passion is not so full-grown, but that its stature might be increased by additional pabulum.

SUMMER HILL, (near) RICHMOND, }
Va., March 16, 1852. }

To the Editor of the American Farmer:—

DEAR SIR:—My engagements of late have been so pressing, that I have found it heretofore impossible to comply with my promise to furnish you with an article on Lucerne, from “Dickson’s Practical Agriculture.” I have at length, however, been able to copy as much as you would be willing to put upon your paper at once. The subsequent paper will treat of the “after-management,” and will be furnished you in ample time for all practical purposes.

Very respectfully,

S. BASSETT FRENCH.

LUCERNE.

“This is another plant of the artificial grass kind, that may in some cases be cultivated with much profit and advantage, as affording a large produce of succulent green food, for the support of different sorts of stock, and likewise of hay for the winter fodder of horses or other cattle.

Soil.—“The soils most suitable to the culture of this plant are all those of the more deep, rich and drier kinds, as those of the sound mellow, loamy, gravelly and sandy descriptions; but on such as are retentive of moisture it should not be attempted, as the roots are liable to be greatly injured, if not wholly destroyed, by the stagnation of water about them. Weeping gravelly lands, and all such as are not well drained, are of course improper for this sort of culture. It is supposed by some, that for the successful cultivation of this crop, it is necessary that there should be a substratum of such a sort as is capable of stopping the descent of roots at a certain depth, in order to prevent their exhausting themselves; but the depth of the mould, in this case, should be considerably greater than for that of the preceding grasses, (saint foin) a foot and a half or two feet being mostly requisite.*

“In the preparation of the land the soil should always be brought into as fine a condition of mould as possible. This may be effected by repeated ploughing and harrowing, and the previous growth of such crops of the green kind as have a tendency to clean and render the land more fine and mellow. In this intention, some advise the taking of two crops of turnips, carrots or cabbages, either in a succession or alternating with each other; the turnips, in the heavier loams, being eaten off upon the land in the second autumn, before it is ploughed up. In either of these cases, from the hoeing and constant culture which is necessary, while the crops are upon the land, it will be left in a suitable state of cleanliness and friability.† Others recommend fallowing as a better practice, the wet weeds of every kind being carefully picked out in the different ploughings and harrowings. From the great length of time that the ground must remain unemployed in this mode of preparation, it is probably, however, only capable of being practiced to advantage where the land is heavy and very full of weeds. Before the seed is put in, the soil must be rendered perfectly fine, by ploughing it over as frequently as may be necessary, and breaking it well down by occasional harrowing. It will seldom be necessary to make use of manure; but where the land is found to stand in need of it, application is best made with the first of the green crops. The object to be con-

*Kent’s Hints. †Annals of Ag. Vol. XV.

stantly kept in view in this business, is chiefly that of rendering the land perfectly clean from weeds, and at the same time highly mellow and friable.

Seed.—"The seed of lucerne is larger and of a more pale color than that of clover; and as much of it is brought from Holland, it is commonly purchased in the seed shops, the prices varying from one to two shillings per pound.* As seedsmen are apt to keep their seeds from year to year, it may be necessary to observe, that that which is perfectly fresh is most proper to be sown, as small seeds in general vegetate in the most perfect manner when new. The proportion of seed that is necessary is variable, according to the nature of the land and manure in which the crop is cultivated. In the broadcast method, which has been very successful, from 18 to 20 lbs. may be proper, while in that of the drill it will be considerably less, according to the distance at which the operation is performed. In two-feet equidistant rows the usual allowance is about 6 lbs.; in those of eighteen inches, about 8 lbs., in those of twelve inches, about ten or twelve pounds; and in nine inch rows, which are by much the best, from 12 to 16 lbs. may be necessary.

Time and method of sowing.—The most proper method for putting this crop into the ground is as early as can be done in the spring months, as in this way plants may be fully established before the season becomes too hot. The latter end of March for the more southern districts may be the most proper period, and the beginning of the following month for those of the north. When sown late there is more danger of the plants being destroyed by the fly, as has been observed by Tull. If the plants be intended to be transplanted out in the garden method, it will also be the best practice to sow the seed-bed as early in the spring as the frosts will admit, in order that they may be strong and fit to set out about August.

"With regard to the mode of putting in the crops, it should vary with the circumstances of the soil, and the mode of after-management that can be adopted with the most convenience. Where much attention cannot be bestowed in hoeing and keeping the crop clean, the best method is that of sowing the land broadcast; though in this method the crop may not last so long in the ground. But in cases where the crops are capable of being kept in a sufficiently clean condition, by repeated hoe culture, the drill may be more advisable, especially at narrow distances. Some however, think it the best method in all cases.†

"The practice of transplanting can, perhaps, only be done in particular cases, on small pieces of deep land that are in great heart, and require the plants in consequence to stand thin and regular upon the ground, as in this mode they become large and of vigorous growth. In soils that are inclined to moisture at some depth below the surface, it may be an useful method of keeping the roots of the plants from being injured by their penetrating too deeply, as is more the case when the plants rise from seed.

"The seed may be sown either alone or with grain crops, in the same manner as clover; each method has its advocate, and it is probable that they may both be useful under different circumstances, as in the deeper and more fertile sorts of lands, the first may be the most beneficial method, and in those of the lighter and less deep kinds, the latter;—

as in the deep, rich sorts of land there may be less loss of time in procuring the green produce for the use of horses and other sorts of stock, as well as the greater certainty of the crop succeeding. But in the lighter and more porous soils, by being sown with corn,* the plants may be better protected in their early growth, as well by the shade as the moisture that will in that way be preserved. Some indeed speak of its superior utility on the ground of long experience in its being better preserved from the fly.† Wherever this mode is made use of, the grain should however be sown thinner than is usually the case, in proportion as the soils are more rich. Oats are preferable to barley for the purpose, as being less liable to lodge, especially when sown thin. From five to six pecks to three bushels, sown as evenly as possible may be the best proportions, the smallest quantity being necessary for the richest soils.

"After the grain has been sown and harrowed properly in, the lucerne seed should be sown by a regular even cast over the fine surface, covering it in with a light seed harrow; but it should be too deeply covered in, two inches is fully sufficient. In the drill method the same system should be followed, the lucerne seed being drilled in either lengthways or across, at suitable distances, immediately after the corn has been put in.‡

"It is hardly necessary to observe, that the plants of ground sown for the purpose of raising plants to be set out in the garden method of culture should always be without grain or other sorts of crops, in order that they may admit of having the plants properly thinned out and kept clean, and in a vigorous state of growth for afterwards being put out with the most advantage.

"In regard to the proper distance of the rows where the drill mode of culture is practiced, it should probably depend upon the state and circumstances of the soils: some advise two feet as the best distance in all cases,§ while others think equal distances of a foot in rich soils, such as are worth from thirty to forty shillings the acre, and nine inches those that are of inferior quality, as from fifteen to twenty shillings the acre, the best general distances.|| On soils of less value it is probable that this culture can seldom be had recourse to with much benefit to the farm. The last distances approaches much to the broadcast method, which is contended by some as the most appropriate in all cases; and of course it may be preferable, as it admits of being ploughed between by a suitable plow in the room of the harrow.

"The seed in whatever method it may be sown, is, when good, rather rapid in its vegetation, beginning to sprout in the course of a week, and soon spreading itself over the surface of the land. And the sooner it attains its rough leaf the better, as it is then, like turnips, out of danger of being destroyed by the fly. Before these plants arrive at this state of growth, they are liable, especially in dry seasons, to be much injured, if not wholly consumed, by the ravages of the same sort of insect, as that which is so detrimental to the turnip plant. Where the greatest part of the plants are injured in this way, it is probably the best method, where the crop has been put in alone, to plough up the land, and sow it down again with fresh seed as soon as possible. This is an advantage which the practice of sowing

* 37½ cts. per lb. in Richmond, Va. † Kent's Hints.

§ Wheat. † Annals of Agriculture, Vol. XXV. † Ibid. § Kent's Hints. || Annals of Agriculture, vol. XXV. & Ibid.

the crop alone has over that of putting it in with those of other kinds."

(To be continued.)

Note by the Editor of the American Farmer.

The idea of setting a field in Lucerne in this progressive country of ours, by growing and setting out plants, is we think not suited either to the age or go a-head habits of our people. If the soil be first well manured, deeply and faithfully ploughed, and receive two or three harrowings at intervals of a few days apart, the best plan to succeed with lucerne, is, we think, to sow it broadcast with oats, say 20 lbs. of Lucerne seed, and 1 bushel of oats per acre. It thus succeeds admirably in France, and would so succeed here. The labor and expense of the row culture of a plant naturally deters practical men from attempting its cultivation.

MATERIALS FOR FENCING—OSAGE ORANGE HEDGE.

E. NEW MARKET, Dorchester Co., Md.

To the Editor of the American Farmer—

Dear Sir:—Being a subscriber to your valuable paper, and living in a section of country where timber, especially fencing material, is becoming more scarce and more costly, yearly, in consequence of the water facilities for transportation to our market,—manifest necessity, therefore, seems to demand that some permanent substitute should be introduced to remedy the present expensive mode of enclosures which are prevalent here.

The OSAGE ORANGE is "puffed up" by the press, as being the very best plant for hedges now in use; if (as stated) in three years from setting out, it forms a fence perfectly impervious to stock, and even thieves, and will endure for a lifetime, then it certainly is the right kind of fencing we need, (taking but three years to mature,) and possessing the three essential requisites, viz:—beauty, cheapness and durability,—such being the fact, I cannot see why the farmers generally should not, on this shore, introduce it into general use.

I have intended setting out a hedge of about two hundred yards as an experiment this spring; but before I commence the operation, I insist to know, as a SUBSCRIBER, your views of this Osage Orange. Knowing you feel a deep interest in every thing appertaining to the Farming interest, and having the most profound respect for your opinion and views of general subjects, I should like very much for you to take up this THORNT BUSH as EARLY as possible, and handle it carefully by answering the following questions through the medium of the Farmer:

1st. The time and mode of planting.

2d. Mode of culture.

3d. Where the seed can be purchased, and at what price; and lastly,—Would you use it as a substitute for ordinary fencing, where expense, permanence and beauty are to be considered.

Your compliance with the above will oblige your obedient servant,

EASTERN SHOREMAN.

March 1, 1852.

Replies by the Editor of the American Farmer.

1. We think highly of the Osage Orange as a hedge shrub. Its quick growth, its numerous and strong series of thorns and general adaptation, render it eminently adapted for hedge purposes. But we would here volunteer the remark, that none should undertake to grow a hedge of any kind, unless they shall previously form the resolution of taking care of it afterwards—unless they impose upon

themselves the unchangeable determination to trim it each spring.

Of the Seeds.—A small lot of the seeds of the Osage Orange can be obtained at the office of Mr. Whitman, and in Washington city of Mr. Coyle.—It is a native of Texas, and Arkansas; supplies can be obtained from those quarters, and we are assured that it will hereafter be sent in quantities to this city.

Mr. Bateham of the Ohio Cultivator gives the following directions for its culture:

1. *Preparation of the Seed.*—If the seed is planted or put into moist earth immediately after taken from the fruit in the fall, so as not to become dry, it will grow freely in the spring, without any preparation; but after it has once become dry, as is necessarily the case with all the seed sold in this country, it will seldom if ever vegetate freely when sown in the spring, unless previously prepared by long soaking and freezing. I have sown more or less of the seed each spring for three years past, and have sold much of it to others; and as the results of my observations and experiments, I now give the following directions, which if carefully observed will ensure success, if the seed is good—and it will grow when two or three years old, if plump and not damaged by heating.

If the soil is light and sandy, so as not to bake hard in spring, sow the seed in the fall; if otherwise, or the seed is not received in time, mix the seed with sandy earth in a box, (not water tight,) wet it thoroughly and set it where it will be exposed to freezing and rain, and not become dry until planting time. Or if the seed is not obtained until spring, soak it in water in a warm room, for 5 or 6 days, then pour off the water and mix with fine earth, and let stand in the room for 5 or 6 days more, or until it begins to sprout; then sow in good soil, like you would peas and beets, and the plants will soon appear. The seed should not be sown earlier than about the first of May or the time of planting corn, as it requires warm weather to cause it to vegetate.

2. *Planting.*—On tolerably good soil, the plants grow so rapidly that they should not be more than one year old when transplanted into the hedge row,—inasmuch as the roots grow very long and deep, and would be much injured by digging at two or more years old. In this region, [Columbus, Ohio] plants grow from 1 to 3 feet high the first year from seed, and more than twice as high the second. They continue to grow rapidly for three or four years after planting, then as the hedge thickens, with the effects of frequent clipping, the growth becomes slower, till at 10 or 12 years old, on ordinary soils, it is not much more rapid than that of the English or American Hawthorn.

In conclusion I would say, that after having repeatedly examined the oldest hedges of Osage Oranges in this country, as well as many of the best hedges of other plants in this country and in Europe, I am fully persuaded that the Osage Orange is in all respects vastly superior for this purpose to any other plant known.

CURE FOR THE BOTTS IN HORSES.—Dr. Morgan gives the following recipe:—

"Take a table spoonful of unslaked lime, and let it be given with the feed and water of the horse, half in the morning, and half at night; continue this regularly for five or six days, and it will completely expel the botts."

ON THE CULTURE OF THE IRISH POTATO.

MARSHY POINT, TALBOT CO., MD.,
April 13th, 1852. }*To the Editor of the American Farmer.*

SIR:—Being frequently called upon for my plan of cultivating the "Mercer" Potato, must plead my apology for offering a communication in your valuable Agricultural journal; and I regret that I have not been able to offer it sooner, not that it is the best, but only offer it as the system pursued by me, with little variation for several years, in answer to many inquiries as to my mode of cultivation.

First, selection of land—2d, preparation of the land—3d, planting the crop—4th, cultivation, and 5th, securing the crop. In selecting the land I prefer a sod, either of clover, or other grass, with a northern exposure, for a late crop; because the rays of the sun are not so direct, nor productive of such great heat, rapid and continuous evaporations, as a southern slope or even a plain; but we in this level country, cannot very often have a first choice. 2d. The preparation of the land embraces manuring, plowing, rolling, harrowing, liming and ashing, as well as laying off the drills. I usually apply about 10 cords cowpound and stable manure to the acre, and have it evenly spread broadcast over the land and turned in to the depth of five or six inches and then rolled, after which, I apply from 80 to 100 bushels shell lime, or from 40 to 50 bushels each of lime and wood ashes to the acre, then run a light spike toothed drag harrow over the ground, and leave it until about the last of May, when the land should be made fine with the harrow and roller.

Sometimes I have back plowed it and I think with advantage; this is done by throwing a list into the clearing-out furrows of the first plowing, and finishing the land where the list was thrown in the first plowing. I should have mentioned that the ground is plowed in broad lands. After the soil has been made fine and mellow, I proceed to sign off the drills 3 feet apart, from centre to centre, and leave it, which will economize time in setting stalks at planting time. I have sometimes, after the drills have been laid off, applied a well rotted compost in the drills, at the rate of some three or four hundred bushels to the acre, particularly in lands that required such additional fertility; and in very stiff clays and where only once ploughed, I have used about the same quantity of stable manure in and along the drills, as a second dressing of manure, which serves to keep the land loose to allow the tubers an easy bed to form in—in cleaning out the drills at planting, this manure becomes mixed with the soil also. 3d. I plant at any time after the 1st June, when there is sufficient moisture in the earth to cause the potato to vegetate. I cut the potatoes two eyes to a piece, and never more than three, and drop the pieces 9 or 10 inches apart in the drill, in as straight a line as practicable as a matter of convenience in cultivation; as fast as a row is dropped I have them covered, by running a furrow from each side of the drill, and afterwards clear the middles out with two furrows more and roll each way, viz: lengthways and across the rows. The drills are to be run out fresh at planting; this compels the work at planting, unless it be necessary to run water leads. 4th. As soon as one half or three fourths of the plants are up, I run a spike tooth light drag harrow over the entire land, regardless of the plants, to destroy the crop of weeds and grass that may be there, and as soon as the plants are 4 or 5 inches high, I bar-plow as close as practicable, and throw

the furrow immediately back, which usually completes the cultivation, but sometimes a crop of grass and weeds make their appearance, which if attended to in time, may be destroyed, by running a small light harrow on each side of the row. I would here remark that a crop of potatoes and grass together cannot be successfully made, and that the neglect of cultivation (very often) for only one week, would involve great loss in the crop. 5th. In securing the crop, I run the bar of the plow close to the row to throw out a portion of the potatoes, which we pick up into baskets, and pour into carts in the fields; as soon as 10 or a dozen are barred and picked up, the plow returns to the place of beginning, and by holding her leaning on the bar and running under them, throws out the main crop, which are also to be picked up, and so we proceed until they are all plowed; we then run a spike toothed drag harrow lengthways, and pick them up, then harrow crossways and pick up the balance; usually, I seed the potato land in wheat, and putting in that crop we get a few more.

The potatoes when taken from the field, are put into a cellar, kept dark, or put into kilns of 40 or 50 bushels each, and covered over thick with straw, or what I most prefer is pine leaves, and covered lightly with earth at first, until the cold warns us of the necessity of a thicker covering of earth for winter.

I have weighed and measured the Mercer variety of potatoes, and found the following to be the result:

1 bushel merchantable potatoes heaped, or round measure, weighed 56½ lbs.

1 bushel merchantable potatoes, even measure, weighed 50½ lbs.

Throwing off the ½ lb. from each, would require 40 bushel heaped measure of 56 lbs. to make a gross ton of 2240 lbs. or 40 bushels even measure of 50 lbs. each to make a ton of 2000 lbs.

Yours, respectfully, JOHN A. CLOUGH.

DECOMPOSITION OF BONES—MIXTURE WITH ASHES.

CHARLESTON, S. C., March 7, 1852.

To the Editor of the American Farmer.

DEAR SIR:—Will you inform me through your paper or otherwise, if wood or coal ashes will be increased in its quality as a fertilizer, by incorporating it with the "Oil of Vitriol," and in what proportion. My reason for this question is, that I am dissolving bones with the Oil of Vitriol, and as I have no convenience for reducing the bones, I find it requisite to use a larger quantity of the Vitriol than is recommended, consequently the paste that is produced, is rather thin, and I wish by adding ashes to restore it to a condition that it can be sown on the land. Very respectfully, yours, &c.

JOHN DEWEES.

Reply by the Editor of the American Farmer.

We do not think that the fertilizing properties of wood ashes will be either increased or lessened by mixture with bones, dissolved by sulphuric acid; though we do think, that the addition of the ashes to the bones will improve the value of the latter, by furnishing many inorganic substances to the plants not to be found in the bones alone.

If our friend would give the requisite time to the action of the sulphuric acid, in the decomposition of the bone dust, we think he would be able to succeed without increasing the prescribed quantities of the acid. Time and patience are both necessary in conducting experiments. We have succeeded in reducing bone-earth to a jelly-like substance, with one-third its weight of sulphuric acid, the latter diluted with three times its volume of water.



BALTIMORE, MAY 1, 1852.

TERMS OF THE AMERICAN FARMER.

\$1 per annum, in advance; 6 copies for \$5; 12 copies for \$10; 30 copies for \$20.

ADVERTISEMENTS.—For 1 square of 12 lines, for each insertion, \$1; 1 square, per ann., \$10; $\frac{1}{2}$ column, do. \$5; 1 column, do. \$50—larger advertisements in proportion.

Address, SAMUEL SANDS, Publisher, At the State Agricultural Society Rooms, No. 138 Baltimore st. over the "American Office," 5th door from North-st.

Maryland State Agricultural Society.

The quarterly meeting of the Executive Committee of the Society will be held at the Society's Rooms, 138 Baltimore street, Baltimore, on the first Wednesday in May, at 10 o'clock, A. M. As the time for holding the Annual Exhibition, and the Prize List, will be settled at this meeting, the Judges appointed, and other business of importance transacted, it is hoped that every member of the Committee (comprising the officers of the Society) will be in attendance, prepared to make such suggestions as may be deemed conducive to the interests of the Society.

By order, SAM'L. SANDS, Sec'y.
The Society, by resolution adopted at the last meeting, will hold a session at the same time and place, at which the members generally are requested to attend.

April 1, 1852.—21

THE STATE SOCIETY.—We hope the officers of the Society will endeavor to be present at the Executive meeting on the 5th inst. Business of importance is to be transacted. The meeting of the Society, it will be borne in mind, is to be held at the same time, which is expected to be of much interest.

Our correspondents, "I. A. L." of Montgomery county, and "W. R. T." of Frederick county, are respectfully informed that their requests shall be complied with in our next number. But for the pre-occupation of our pages, at the receipt of their esteemed favors, it would have given us pleasure to have done so in this.

"D. E. C." is respectfully informed, that we will cheerfully comply with his request next month. We have, for years, been endeavoring to inculcate views similar to those entertained by him upon the subject of liming.

A communication from Abraham B. Hooe, esq., of King George, Va. is received, and will appear next month.

We are indebted to his Excellency Gov. Lowe, for a small box of imported vegetable Seeds, received via the Patent Office, for the Maryland Agricultural Societies.—They embrace a great variety, and we will distribute them to applicants. We thank his Excellency for favoring us with their dissemination.

RAISING OF SHEEP.—We recommend to the attention of owners of land suitable for sheep pastures, the advertisement in our pages of this month, of a gentleman who is desirous of engaging in the business. From the references he has produced to us, we are satisfied that he would be found a valuable acquisition to any gentleman owning lands suitable for the raising of sheep—and we think that the increasing demand for wool, and the facilities in some sections of Virginia and Maryland for growing it, should induce a greater attention to this great staple.

TRIAL OF HAY PRESSES.—We are requested by Col. J. C. Walsh, chairman of the committee, to state, that the trial of Hay Presses, for which the Md. State Agricultural Society at its last meeting offered a premium of \$50, will take place at the farm of Jno. Merryman, Jr., near Cockeysville, Balt. Co. Md. some time between the hay harvest and the next Exhibition of the Society, of which particular notice will be hereafter given.—Mr. Merryman has with much kindness and liberality tendered to the Society and those who may be interested in the trial, every facility which his farm affords; his teams will be in readiness to transport from the Cockeysville depot the machines intended for the competition, and we have reason to anticipate their free transportation from Baltimore to the above point on the Susquehanna rail road. The following gentlemen have been added to the committee—Hy. Carroll, Jno. Merryman, Jr. and Wm. Jessop, of Baltimore County, and Aug's Shriver, of Carroll.

TRIAL OF REAPING MACHINES.—The trial of Reaping Machines will take place on the farm of the chairman of the committee, Col. Edw. Lloyd, near Easton, Talbot Co. Md., and no doubt a free transportation will be given by the steam boat companies, to all machines intended for the exhibition trial. The time will be announced in our June No.

VIRGINIA LANDS FOR SALE.—We call attention to the sale of valuable Lands, to take place on the 26th inst. at Petersburg. Mr. Bolling's tract is at private sale until that date—some idea of its value may be formed, from the fact, that about 21,000 bushels wheat were harvested from it last year—the spare wood on it, we are told, would nearly pay the price asked for the whole tract. This sale is worthy the attention of farmers or speculators from the North.

LEGISLATION FOR FARMERS.—The President of the Senate of Maryland has laid before that body a communication from Chas. B. Calvert, President of the Md. State Agr. Society, asking for the incorporation of the Md. Agr. College and Experimental Farm—which will no doubt be granted. Mr. C. has been actively engaged in enlisting the aid of the agriculturists of Maryland in behalf of the College, and we hope that his efforts will meet with a hearty response.

Mr. Brooke, of P. George's Co. has introduced a series of resolutions in the House of Delegates of Maryland, recommending the establishment of an Agricultural Bureau by the General Government.

A memorial has been presented to the same body from farmers of Queen Anne's Co. for the establishment of a Laboratory in this city, for the analysis of Fertilizers, &c. offered for sale to the agriculturists of the state.

Mr. Franklin, from the Committee on Agriculture, of the H. of D. has made a report adverse to the petition of the farmers of the state, for a tax on dogs to protect sheep.—It is stated that the reasons are given at length in the report. Will some friend in the Legislature favor us with a copy of the report?

When will agriculturists send men devoted to their interests to the Legislature?

Southern Central Agricultural Society of Georgia.—The annual exhibition of this truly liberal Society, will be held at Macon, Geo. on the 18th to the 23d days of Oct. inclusive.—The premium list will amount to nearly or quite \$4000.

FINE SHEEP.—Farmers wishing to improve their flocks, are referred to the advertisements in our pages this month. In a recent visit to Mr. Wm. Jessup's farm, we were shown his flock, composed principally of full bred New Oxfordshires, and some with small crosses on the South-Down and New Leicester. We doubt whether there is a larger or finer flock in this State; and the increase has been greater than the facilities of keeping them, which induces Mr. J. to part with some of his breeding ewes, which he will sell very low. He will also have a number of young bucks for sale this Fall, and will receive orders for them to be delivered in September. Mr. Jessup has bred from animals selected from the late Mr. Reybold's flock, and are among the finest specimens of the breed we have seen. The highest price given in our market, of late years, by our mutton butchers, was paid by Wm. Godman, for wethers from this flock.

Mr. Hughlett, it will be seen, has also for sale some of the Cotswolds, the breeders of which he obtained from the justly celebrated flock of Col. Ware, of Va.

LIGHTNING RODS.—The attention of farmers, and others, is directed to the advertisement on another page, of Messrs. Merrell & Co. who are prepared to put up Lightning Rods manufactured upon the plan invented by J. Spratt, of Cincinnati, Ohio, and which are recommended by scientific men of the highest character, as superior to any others before brought to the notice of the public.—In addition to the certificates of Professors Silliman, sen. and jun., and Dana, of Yale College; N. R. Smith, and Wright, of Baltimore, and the Committee of the Md. Institute for the Promotion of the Mechanic Arts, we have been shown the testimonials from many others, all confirming the opinions expressed in favor of these Rods by these eminent scientific men, which induces us to recommend them to the attention of all who may wish to preserve themselves from loss by lightning. Farmers in the neighborhood of Baltimore, are having them erected upon their buildings.

THE "FARMER."—A subscriber in Dinwiddie Co. Va. says, "one subscriber tells me that one number of your paper was worth to him the price of one year's subscription."—Another at Norfolk, an officer of the Navy, sending us the name and cash for a friend, who requests the Farmer, to be sent to him, remarks:—"I really must take advantage of this opportunity to express the pleasure I receive in reading your valuable journal. It may appear presumptuous in me, a sailor, to express an opinion upon an agricultural subject, as my life on a farm dates from my subscription to your journal, but nevertheless I will say, if the American Farmer is read attentively, and followed to the letter, the condition of our farmers will be improved beyond conception." We would remark, that we have a number of subscribers belonging to this main arm of the defences of our country, many of whom have borne testimony to the advantages they, and their families in their occasional absence, have received from our journal.

A subscriber from Louisa Co. Va., had ordered the Farmer to be discontinued, but in sending a renewal of his subscription, remarks that it had preyed so heavily on his mind that if the subscription was five dollars per annum, he would not be without it—

and adds his prayers, that its increase may spread "from North to South, and East to West, and in every farmer's heart a monument will be raised to you, and you will be ever blessed." We thank our enthusiastic friend for the kind feeling he evinces towards us and our journal.

RURAL ARCHITECTURE.—We are indebted to Burgess, Taylor & Co. of the Sun Iron Buildings Baltimore street, for a copy of a work recently published by C. M. Saxton, Agricultural Book Publisher, New York, entitled,—

"RURAL ARCHITECTURE, being a complete description of Farm-houses, cottages and out-buildings," &c. by Lewis F. Allen.

The volume is beautifully illustrated with designs of the various styles of buildings of which it treats, which are accompanied by comprehensive descriptions of the interior arrangements, ground plans, chamber plans, cost, and miscellaneous matters, germane to the subjects discussed. Such a book was greatly needed, and we do the author but sheer justice when we say, that he has fully and ably discharged the task he assumed to himself. The designs and explanations which accompany each building, prove conclusively that good taste, sound judgment, utility and economy, have been the guides by which he was directed. But this was to be expected of a gentleman of Mr. Allen's learning, expansive mind, and great experience as an enlightened agriculturist and stock breeder. We repeat, such a book was greatly needed, and we think the lessons inculcated by it, will go far to correct the bad taste which has heretofore prevailed in the erection of farm buildings. While the author has sought to effect this, he has looked more to comfort and convenience, than to ostentation and show,—and yet his designs have a most pleasing expression, and are by no means expensive. An extensive and enlightened farmer himself, he knew of the farmer's wants, and has provided them with a master's hand.

SAXTON'S RURAL HAND BOOKS.—We have received from Burgess, Taylor & Co., Sun Iron Building, four duodecimo volumes, with the above titles. They consist of,—1. "*Horses, their varieties, breeding, and management in health and disease.*"—2. "*The Hog, its origin and varieties, and treatment under disease.*"—3. "*Domestic Fowl, and ornamental poultry.*"—and 4. "*The Hive and the Honey Bees, with an account of the diseases of bees, and their remedies.*"

The above works are reprints of a series published originally in London, by Orr, and are from the pen of H. D. Richardson, Esq. We have had the English edition of the same works in our possession some time, and after reading them very carefully, we are prepared to commend them most cordially to our readers. They treat—and treat well—of subjects in which every agriculturist is deeply concerned. The author is favorably known in England and Ireland, for these and kindred works, and will be appreciated here by all who may buy any of his productions. In giving each subject, separately, the publishers are enabled to offer to the public much valuable information at a very cheap rate; the cost of each volume being but 25 cents.

SHINNEY PEA.—We are indebted to Mr. E. Reyolds, of this city, for a small quantity of the Shinney Pea, raised on his farm from seed obtained from Mr. Chisolm, being a part of the lot received by us some time since.—We will distribute among such of our friends as may apply, what we have.

Lime.—That lime has been used in unnecessarily large quantities we have ever believed, and as we go for the economic use of all agents as improvers of the soil, we have endeavored, in our humble way, to impress upon our readers, the opinion, which we conscientiously entertain, that it is better to use 20, 25 or 30 bushels of lime per acre, than it is to apply a hundred; first, because the outlay is less, and, secondly, because either of the first named quantities is a greater quantity of lime than can be consumed by the crops grown on the land in as many years. We have used 100, 75, 60, 40, 30, 25, and 20 bushels per acre, by way of experiment, and we never could perceive that, in the course of a rotation of six years, we derived more benefit from the largest than we did from the smallest quantity named; whereas, in an economical point of view, we saved largely in the latter quantity. A neighbor of ours, against our advice, applied 2600 bushels to six acres, and, as a consequence, injured his land for many years, and caused him to expend hundreds of dollars in the purchase of stable manure, before he overcome the evil effects of his overdose of lime. When we attempted to dissuade him from such an excessive application, his reply was,—"If a little is good, a good deal is better." But experience taught him the contrary.

Lime, how applied.—A correspondent, Mr. G. of Pottsylvania, Va., asks sundry questions as to the best time of applying lime to poor land, when it is not practicable to turn under one or more green crops.

It is not a matter of very great importance how lime may be applied to land, which may need it, the great object is to get it on the land, and distribute it evenly over the surface, and then to harrow it in, so as to intimately mix it with the surface soil. This presupposes the previous preparation of the land by ploughing and harrowing.

If the lime be unslaked, it will be best to slake it with salt brine, and when it falls into powder, to apply 25 bushels to the acre, taking care to distribute it evenly over the land, so that every part may receive an equal portion. The quantity we name will be sufficient for land in the condition of that represented by Mr. G.

As to the proper time, any time is the proper one; there is perhaps none better than when the land may have been prepared for the corn crop. After being spread it should be harrowed in, so that it may be disseminated thoroughly throughout the soil, and by its presence and contact, have the opportunity of acting upon the inert matters of the soil. If the lime which he may purchase, has been previously slaked, then he should in addition to the lime, broadcast two bushels of salt per acre over his land, and if to that he could add five bushels of ashes per acre, he would be able to place his land in the best possible condition to be benefited by whatever putrescent manure he may have to apply, whether that be stable and barn yard manure, or compost formed of two loads of that to every one of woods' mould, marsh, river or creek mud, or any kindred substances.

Lime, in some form must be the basis of every system of improvement; but it is futile to attempt to build up the constitution of any worn out land, without the aid of nutritive manures—what we mean by nutritive manures are such as by putrefaction and decomposition will afford as one of its resultants ammoniacal elements. Stable manure, barn yard manure, fish, or any other animal substance, marsh

mud, river mud, wood's mould and leaves will do this—but if the four last substances be used, they must be excited into fermentation and decay by animal or alkaline substances, as with barn yard manure, stable manure, chandler's greaves or ashes, the whole to be formed into compost, and suffered to be in bulk for some weeks until the incipient stage of decomposition shall have been brought about. If Mr. G. can procure some cheap salt, as the salt of the packers, and would add two bushels to every 20 loads of the rough materials, the value of the compost would be greatly increased.

QUALITY OF PLASTER.

BUCKINGHAM, VA., Feb. 19, 1852.

To the Editor of the American Farmer—

MR. EDITOR:—As the use of plaster is important in farming operations, I have taken the liberty to request you to inform the farmers of this vicinity through the columns of your valuable paper, how to select a good article of plaster. We purchase our plaster in Farmville at a high price, (from ten to fifteen dollars per ton) and frequently get an article entirely worthless, and we are greatly discouraged in its use.

Reply by the Editor of the American Farmer.

We should, if we were able to do so, be highly gratified to prescribe a plan for selecting good plaster, but we are not. The failure of the plaster to act, as alluded to by our correspondent, may have arisen from several causes. The mineral may have been present in sufficient quantities in the soil to which it may have been applied, or the soil may have been deficient in some other operative substances, or it may be, that the plaster was not ground fine enough to favor prompt decomposition. To render plaster most effectual, it should be reduced, in grinding, to an impalpable powder—the finer the better, as the more the particles may be divided, the greater will be the surface presented for the decomposing action of rain. There may be a difference in the quality of the stone from which the plaster is manufactured; some beds possessing a much larger per-centage of sulphuric acid than others. The quantity however of acid can only be determined by accurate and carefully conducted analyses—things which the general run of Inspectors know nothing about—and, indeed, we do not think that any system of inspection that could be devised, would answer a good end, as unless the analyses were thorough, embracing every part and portion of the entire cargoes, they would be of no use,—and even if they were, the ground article would have to be subsequently inspected, to guard against the admixture of foreign substances. So that, after all, inspections are but "insecure securities."

To analyze plaster, so that it would afford protection to the purchaser, would involve an expense that would largely add to the cost of the article—all analyses, not so conducted, would be utterly useless. For ourselves we do not believe in the charge of adulteration so flippantly bandied about—the raw material is too plentiful, and too cheap, to hold out any inducement sufficient to justify men to perpetrate frauds by admixture of foreign substances. Men don't often cheat without the prospect of profit. Our opinion is, that the only inspection needed, is as respects the fineness of the article, and that all beyond that would be a mockery—an imposition of a tax upon the consumer, without any corresponding protection.

THE AGRICULTURAL DEPARTMENT OF THE GOVERNMENT.

To the Editor of the American Farmer.

I was quite surprised in looking over your March No. of the American Farmer, to find in the proceedings of the Maryland Agricultural Society, a proposition had been adopted to urge upon Congress the creation of a Department of Agriculture, I presume, without due consideration. This resolution, it seems, was afterwards rescinded, by another meeting, at the suggestion of a member, upon the ground of a want of power in Congress to do any such act.

I cannot believe so intelligent a body as the Maryland Agricultural Society, after due consideration, can adopt any such resolution, in direct conflict with the principles of the Federal Constitution.

I am an agriculturist, and am as much devoted to their interest as any one can be, but I have lived long enough to see the gradual encroachment of power under specious pretexts, to deprive the people and the States of the rights belonging to them. The author of the resolution seems to think, we should have a Cabinet Minister, similar to the one in France, not recollecting that France is a despotism, and its Prince President, with his thousand bayonets, can do what he pleases: while our Government is a Republic, with no more power than what is expressly given it.

Now with due deference, I ask, where is to be found in the Federal Constitution a power given to Congress to take charge of the interest of agriculture? The general welfare, I suppose. That doctrine was exploded by Mr. Madison, in his celebrated report of '99, where it was placed by the federalists of that day, but is not even recognised by them at the present.

Because Congress has improperly created Committees of Agriculture, the President concludes, they are worse than useless, without this Department to tell them what to do. Perhaps he is not aware how these committees came to be created, nor the motives which led to them. They are of recent date, and originated in opposition to the Tariff party. The committees of the two houses originally existed of commerce and manufactures, and when the protection of manufactures became an object with a certain party, the committee of manufactures in the House of Representatives became separated from that of commerce. It was believed by some to be necessary to raise a committee of agriculture to act in opposition to that of manufactures, which was accordingly done, although admonished that the House had no jurisdiction over the subject, and it would soon assume to itself powers not properly belonging to it. It accordingly for some sessions, contented itself by merely reporting against the protection of domestic manufactures, until finally it became composed of members favorable to the protection of manufactures, and acted in unison with that committee. This is the way in which these committees came first to be established, and if they are "worse than useless," it is because they have properly nothing to do with the subject of agriculture.

Mr. Madison in his celebrated report in '99 to the Virginia Legislature, arraigned this as one of the subjects over which the Federal Constitution was about to assume jurisdiction, under the pretext of promoting the general welfare. If they can do this, they can direct the internal concerns and

modes of industry in the several States—take charge of the education, and do whatever else a majority may think proper, consulting *their interest* rather than the Constitution.

A proposition was submitted to the convention, "to establish public institutions, rewards, and immunities, for the promotion of agriculture, commerce, trades, and manufactures," but was passed by, and the only power given to Congress, touching the pursuits of individuals, was, "to promote the progress of science and useful arts, by securing for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries."

The head of the Patent Office was originally occupied by a person supposed to possess some mechanical genius, whose duty it was to issue patents, and keep them in a state of preservation and order; and not until it came to be filled by ex-members of Congress, was it diverted from its constitutional purpose to an Agricultural Bureau, collecting and disseminating seed throughout the country, so worthless, that I have never seen the first man who continued them after the first trial. But it was necessary to give greater dignity and consequence to an office which a mere machinist would have been contented to enjoy, with the salary attached, the labor being inconsiderable; and now we see it gravely proposed to establish another Department of Government, equal of course in dignity and salary to the others, issuing orders to the different Agricultural Societies throughout the Union, directing them how to plough the land, sow their wheat, and, perhaps, directing what implements of husbandry they shall use. And this is proposed to be done by the President, who knows of no parliamentary law restricting his will, under a resolution adopted at one meeting, without discussion, but at the next meeting, upon better reflection, was rescinded. Now, there is no parliamentary law touching the case.

It was a simple resolution adopted at one meeting; which it was perfectly competent for another meeting to rescind altogether; or even if it had been executed, to have declared a different opinion, and countermanded any further action upon the subject.

I hope at the next meeting Mr. McHenry and Col. Hughes will be there, and give substantial reasons why this thing should not be done, and not say to our Statesmen, if you do not violate the Constitution, we will send those there who will. This doctrine would suit better the present regime at Paris, than the Republic at Washington.

AGRICOLA.

For the American Farmer.

THE AGRICULTURAL DEPARTMENT.

I have carefully read the proceedings of the quarterly meeting of our Agricultural Society of the 4th of February, and the proceedings of the adjourned meeting of the 18th of the same month. I regret the inconsistent course of action our Society is made to pursue, the former meeting having passed resolutions favorable to an Agricultural Department, and the latter summarily repudiating them and cancelling the powers conferred.

At the time of holding these meetings the matter stood thus: Two Executives, Presidents Taylor and Fillmore, had recommended to Congress to create an Agricultural Bureau. The head of one Department—the Department of the Interior—

quoting the language and authority of Washington in his last message to Congress, had made a similar recommendation. A Democratic Committee of the Senate at the last Congress had reported a bill creating such a Bureau. Judge Douglass, a prominent member of his party, had proclaimed only last autumn before our Society, as he had previously done before the New York Society, the necessity for such a Bureau; and lastly, very recently, the Democratic Legislature of Alabama had instructed its Senators and members to vote for a bill creating a Bureau.

One would suppose that here was authority enough, and it was natural our association should join in expressing concurrent views, as was done by the meeting of the 4th February. But our friends at the meeting of the 18th February express themselves to the effect, that somebody, somewhere, entertains doubts as to the constitutionality of Congress creating by law an Agricultural Bureau or Department—and upon these doubts—which seem at best to be rather vague—the first blow is struck against legislation in connection with agriculture—and this blow is from the hands of our friends—this question of *Constitutional law* is sprung upon us in the evening meetings of a society formed to promote agriculture.

I do not wish to say a word to widen a breach which I trust will soon be closed and again place us shoulder to shoulder in support of the good cause. But I think that these gentlemen at least acted precipitately—that no question of constitutional law was before them, or could in fact arise until it was known, specifically, what powers it was proposed to confer on a Department, either by having the bill before them or agreeing upon what were to be its special provisions. Therefore they showed an over-zeal for defending the Constitution, and went out of their way to argue and resolve against their own interest, and in effect to censure their friends. A bill may be passed creating an Agricultural Department and giving it powers literally embraced in the very language of the Constitution, that no abstractionist himself could cavil at on the score of constitutionality, and which Bill, though stopping short of much it should contain, would still confer very important powers for the advancement and promotion of this interest. Therefore no one can say that the mere creation of an Agricultural Department is an unconstitutional act.

The power of Congress to create a Department—to create any Department—is not given in express language, but the departments are spoken of by the Constitution as being to exist without naming them, or saying what they are to be, or how many; and this power, which was last exercised in creating the Department of the Interior, is conferred by the general provision that Congress shall have power to make all laws which shall be necessary and proper for carrying into execution the powers of the Constitution.

Among the specifically enumerated powers in the Constitution, is that "to regulate Commerce."—Now this is exactly the exercise of the power we require of Congress in reference to Agriculture. The great division of Agriculture is into *Production and Markets*—and the latter quite as much concern and affect the prosperity of Agriculture as the former. Who can or will deny the commercial feature of Agriculture? We are often literally our own shippers, and certainly every man who produces has an interest in the commercial relations through

which his produce finds a market, or through which he obtains supplies for prosecuting his occupation.

Take the article of Guano for instance. Last year, 32,000 tons were shipped to this country, for which the farmers paid one million and a half of dollars; the importation is likely to be doubled, and trebled, and quadrupled within the next few years. There was recently a monopoly of the trade by an English house. When it expired, we had hoped it would be put upon a different footing; but the firm of Gibbs & Co. of England, it seems, is only changed to another of New York, of which a foreign Minister, in his private capacity, is said to be a silent partner, and this monopoly has thus been renewed, by which our farmers are placed in the power of a few speculators probably for years to come, and compelled to pay \$45 a ton for Guano that ought to cost them not exceeding \$30, as this company pays but \$10 a ton for it, and \$14 a ton is said to be fair freight. But the matter required a thorough investigation in all its details and bearings, and the application of a degree of time and attention, and a perseverance and address in negotiation with the Peruvian Government, in order to open the trade to our commerce generally that none but the head of a Department of Agriculture would be likely to give to it, or could find time to give to it. A half million a year would be a moderate estimate of the savings that might be effected to our farmers by the efficient head of an Agricultural Department in a matter thus strictly confined to the "regulating of commerce."

Take as another case in point, and resembling the former in character, the so-called Canadian Reciprocity Bill. This bill, designed to give our home markets, for which we are heavily taxed, to Canadian wheat growers, and to lower the price of that staple 20 cents a bushel, is pressed by the British Minister, the Colonial Governor and Cabinet, with the greatest zeal, and our merchants, who always go for "freight, storage and commission," no matter who may be the sufferers, are—at least the New York and Boston merchants—actively using every exertion to obtain the passage of this bill. Was our interest represented by the head of a Department, what service he could render us here; because an able report, embodying all the facts in the case—showing the capacity of the respective markets, the products of the two countries, and demonstrating that we could by no possibility send any thing to Canada—and that it was but making a foot-ball of Agriculture for the benefit of Commerce—if this could be done, if this could be represented in cabinet meetings, we might hope to be saved the calamitous blow that will be given to our wheat fields and pine forests by the passage of this law.

Now, when there are such legitimate and pressing subjects, and I have enumerated but two out of twenty that might be named, requiring the representation of our interest in the Cabinet, is it not surprising that our friends should rush together and find a mare's nest in constitutional "scruples"—as to whether our interest is entitled to any representation at all? Possibly these gentlemen anticipated direct protection to Agriculture was sought—or a normal participation in its operations. No such thing. It is only in reference to Commerce, the sailing of steam-ships, that the Government is asked by the merchants to increase their investment of ten million of dollars by advancing farther partnership funds for the use of Collins & Co.! The farmers

merely ask the delegation of executive power to the head of a Bureau or Department, to execute laws bearing upon Agriculture—and to have a voice in Cabinet councils when laws are proposed that are inimical to this interest. Can we not all stand on this platform?

Thus far I have at least shown that there cannot be the pretext of a doubt as to the constitutionality of a law, so far as the commercial interests of Agriculture are concerned, committing these interests to a Department for its administration.—Nor would these commercial relations of Agriculture alone—such as exist and are constantly arising—leave the Department with much leisure on its hands.

Having thus answered the doubts of our friends, and I think sustained my charge against them that they acted precipitately, I go farther and venture the opinion that the Constitution does not confine Congress in its legislation to the enactment of laws relating exclusively to the commercial relations of Agriculture.

It is too late to talk about the States not having delegated power to legislate in reference to Agriculture. Washington, early on the Constitution going into operation, himself one of its framers, thought otherwise, and recommended the exercise of this power. Congress has in repeated instances recognized it, and has standing committees on Agriculture, who report to Congress. The Patent Office Report has its sole emanation under this authority. A convention of the States never would have done so foolish a thing as to create a government to wield its great powers and patronage only in reference to a subordinate interest. The consequence of course would be that Agriculture would suffer, for the States are impotent, so far as concert of action might be necessary to prevent encroachments by other interests. There is not a civilized country in Christendom whose Government does not extend its legislation over Agriculture. The thing is an anomaly in the history of Governments. Congress can and does tax Agriculture, and Congress can and should guard and foster it by wholesome laws. But until we get a Department to cut out and recommend subjects for legislation to Congress, little is to be hoped from them.

It is known at present that the state of our agricultural interest is not communicated in any public authentic document to the Cabinets of Europe, if we except the semi-official Patent Office Reports, if these are sent. This is said to have been often the subject of remark by European statesmen, that while every thing in relation to our commercial marine, our inland and foreign commerce, our exports and imports, were published and sent forth with great care and accuracy, there was an utter silence as to the existence of any such interest as Agriculture—and for the reason that there was no head of a Department to report upon this interest.

The fact is, Agriculture has been completely overlooked, and there are those who would seek wholly to disfranchise it as an interest. It comes in for the burthens, while it shares few of the benefits. It pays taxes—four-fifths of all the taxes,—but it is denied a cabinet minister in administrations that are supported by its labor. It is curtailed of profit and shut out from sources of information by which these profits would be greatly enhanced. Is it not then time that every friend of Agriculture should rally and demand its fair representation. We should act in harmony and concert. We have 300

Agricultural Associations! We have a half a million subscribers to an Agricultural press! Our rights will be accorded to us if we are true to ourselves. Let our Defenders of the Constitution forbear, and not be among those

"Who make a death that nature never made,
Then on the point of their own fancy fall."

Our mission is to advance the cause of Agriculture, and through our skill and energy to ornament and improve and enrich our country, so that in time it shall not be more remarkable for the extent of its territory than for the beauty of its cultivation. Let us not have occasion to take all the credit to ourselves, but it should be matter of pride to realize and acknowledge that the fostering care of our free Government has also consulted our welfare. But on the contrary, if the Government is to be denuded of all power but to fight and to trade—to keep up an Army and Navy and collect Revenue, there is little in such a skeleton form we could admire. A Captain Bobadil, with a long sword by his side, a Jack Tar with his tarpaulin, and a merchant's clerk with his pen behind his ear, would be a fair symbolical representation. But that is not a picture of our country—of that country which Washington the Farmer helped to make a Constitution for, for in that, Agriculture is represented; the farmer is there with his plough, the merchant with his ship, the manufacturer with his loom, the artisan with his hammer—these—all these, are the jewels of this American Mother, and proudly shall she wear them, nor will her sons consent that a single one be torn from her brow.

AGRICULTURE.

RECIPE FOR CHEMICAL MANURES.

Baltimore, Jan. 5th, 1852.

To the Editor of the American Farmer.

Will you be kind enough to inform me what per centum of Potash is contained in a bushel of ashes.* The magic effect of ashes on land is chiefly owing to the presence of this alkali. Now the quantity of ashes yearly produced on our largest estates is comparatively small, not enough to give a full dose to more than an acre or two of ground. What I wish to come at is this, would it not be more profitable instead of waiting patiently for the refuse of our fire-places, to procure at once Potash itself and make it a constituent of our compost heaps. The Pearlash of commerce, which is a strong sub-carbonate of Potash, may be purchased by the tierce, containing 3 or 400 lbs. for 5½ or 6 cents per pound. One hundred pounds of this to an acre, may be considered a very liberal allowance, and an answer to the question propounded above, will enable us to tell of how much ashes it is the equivalent. It seems to me that if a little light were thrown on this subject through the influential columns of your paper, a source of considerable revenue would be discovered by our agricultural friends. All the constituent elements of vegetation, save what the atmosphere and mother-earth everywhere afford, may be purchased in any of our cities at prices much lower than farmers have any idea of. If this fact were generally known, every enlightened farmer who has a little knowledge of chemistry might become the manufacturer of his own agricultural salts, and instead of paying high prices for Guano and the patent prepa-

* A bushel of hard-wood ashes, unleached, contains 5½ lbs. of Potash—when leached, about 1½ lbs.—Editor Amer. Farmer.

rations of manufacturing chemists, could improve his lands permanently, at a comparatively small expense. Besides, by general experiments with mineral manures, much truth and valuable information would eventually be elicited, which would redound to the general good and to the improvement of our worn-out lands. If every farmer would either analyze his land himself, if competent to do so, if not, have them correctly analyzed by some reliable chemist, and find out what mineral matter they contain and what they wanted, and immediately supply the deficiency, there would be less complaint about the small profits of Agriculture, and less emigration to the inhospitable and unhealthy wilds of our western domain. I will conclude by proposing the following recipe for agricultural salts, with market prices attached to ingredients. The recipe contains almost every constituent of vegetation, and would, I am sure, with the usual rotation in crops, make land deficient in mineral matter, permanently rich.

- 50 bushels Lime, at 10 cents per bushel.
- 100 lbs. Sulph. Soda, (Glauber's Salt,) 1½ cts. lb.
- 100 " Mur. Ammon. (Sal Ammonia) 17c pr. lb.
- 150 " Sub. Carb. Potash, (Pearlash,) 6 cts. do
- 500 " Phosph. Lime, (Bone Dust,) \$1 per hundred pounds.
- 100 " Sulph. Magnesia, (Epsom Salts,) 2½ cts. per pound.
- 40 cart loads of Stable Manure, 12½ cts. per lb.
- 8 " " Clay—Time required in obtaining, \$2.00. To be applied to two acres of land.

These articles should be thoroughly mixed into a compost heap 3 or 4 weeks before application. The time of application should be early in Autumn. If the land is to go in wheat, after spreading uniformly, turn in with a double plough; the following spring sow in clover or grass, and the ensuing fall commence your fallow. By this time the acrid and pungent qualities of the manure will be neutralized and well incorporated with the soil, and the abundant crops of grass by furnishing additional organic matter will make it still more available for the growth and nourishment of the coming crops. If the impatience of any farmer who is jealous of the amount expended, and anxious for a quick return should prompt the wish for an immediate dividend, the land may very profitably be put in corn the following summer, as the winter's frost and moisture will have mellowed it sufficiently for that purpose; but in that case, the quantity of organic matter in the recipe had better be augmented.

If this article is deemed worthy of a publication in your journal, be kind enough to insert it, with any comment your good judgment may think necessary.

Yours respectfully,

JAMES H. ROY.

[We have no doubt of the efficacy of our correspondent's recipe, but think it too costly for farmers' pockets generally.—*Ed. Am. Farmer.*]

PEAS STRAW.—In Scotland, the haulm of peas is used as fodder for working horses instead of hay; and when well harvested, forms a very excellent provender, inasmuch that it is considered to be of about equal value to the grain itself. For sheep it is particularly grateful, and supposed by some, to improve the quality of the wool. We mention these facts thus early, that those who have no meadows whence to draw their supply of hay from, may avail themselves of peas straw as a substitute.

GEOLOGICAL SURVEY OF NORTH CAROLINA.

We insert the subjoined letters with great pleasure, and congratulate the planters and farmers of the good old North State, that the appointment of Geological Surveyor has been confided to a gentleman of such rare acquirements, high intelligence, indomitable perseverance and moral worth, as Professor Emmons is known to possess. From his labors we anticipate that the best results will follow, and shall be happy at all times to give place to any communications from him; first, because from his eminent qualifications we know they will be valuable, and secondly, because it will afford us infinite satisfaction to contribute our mite towards advancing the interests of the patriotic people of North Carolina.

To the Editor of the *American Farmer*—

RALEIGH, N. C. 16th March, 1852.

DEAR SIR:—I send enclosed a letter from Professor Emmons, on his recent discoveries of Marl, which you will find interesting; from the Professor's survey we hope to derive incalculable benefit.

If you will send me a few extra numbers of your paper I will try and get you some subscribers; we have recently formed an Agricultural Society here, and at the meeting your paper was pronounced by one of the speakers, (and a good judge) the very best paper published. Yours, respectfully,

W. H. JONES.

LETTER FROM PROF. EMMONS, STATE GEOLOGIST OF N. CAROLINA.

GOLDSBOROUGH, March 6, 1852.

To his Excellency, David S. Reid:

SIR:—In view of the improvements which are in progress on Cape Fear river, and also in expectation of finding deposits important to the agriculturists upon its banks, and in the upper country on Deep river, I deemed it proper and best to make explorations on its course and banks while its waters were low. I have, accordingly, made numerous examinations of the formations on this river, and am able to state facts of considerable importance as to its geology, but more particularly of the deposits of marl which abound upon its banks, and at a distance from its course.

Probably no substance has been discovered which is so important to the interest of agriculture of the lower Counties of North Carolina, as marl. The lands, especially those in which sand predominates, have been worn out—I might, perhaps, say more than once. Now it is by means of marl employed as the basis of a fertilizer, that these lands may be cheaply renovated. On the poorest, however, of these lands it is not to be expected that this substance can supply all that is wanting to impart to them their original fertility; inasmuch, as in the progress of long cultivation and the production of a variety of crops, the soil is exhausted of those elements which marl by itself does not contain.

There are two kinds of marl upon Cape Fear river. One is known as shell marl, and belongs rather to the upper parts of the river, or I may rather say it is in thicker beds at distant points from the ocean. The other marl is known as the blue marl, and is found at points nearer the ocean than the former. The shell marl reaches to a point at least twelve miles above Elizabethtown, and is usually well exposed at different points on the banks of the river. So, also, it is often met with in ravines at points dis-

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tant from the river. Hence it becomes more accessible to planters and requires less expense in hauling it. These belts vary considerably in extent. Some are visible one-fourth of a mile on the banks; others appear to have been deposited in insulated particles. Their thickness varies from a foot to seven feet. They are not continuous deposits. The composition of the shell marl is to the eye calcareous, varying, however, from a very sandy marl to a perfect lime deposit—consisting of carbonate of lime. Many analyses should be made of this marl, as it is only in this way that its real value can be determined.

The blue marl is a different substance from the shell marl. It is, by the way, the substance known as the green sand, in New Jersey, and has long been in use there and to the very great advantage of farmers. It belongs to the cretaceous formation of Geologists. The upper bed of this marl I now believe extends above Elizabethtown. It is, however, quite sandy, and I was unable to find at this point its characteristic fossils. Farther down the river, however, at Brown's bluff and Robinson bluff, I found in what I now regard as the upper green marl, the characteristic fossils—the *Exogyne costata*; and at Syke's landing the *Belemnite*. At Black Rock, however, the lower green marl is in great force, and I believe at many other points it would be easy to expose it, so that an inexhaustible supply of this substance might be obtained for the use of Planters on the Cape Fear and Deep rivers.

From the foregoing it will probably be perceived that the banks of the Cape Fear, and the numerous runs which enter it from the South, are rich in these fertilizers; and it only requires an additional spirit of improvement on the part of the planters to double the products of their plantations. It is proper to observe here that the marl deposits are found mainly on the left or South bank of the river. I am well satisfied that the time is not distant when these rich deposits will be fully employed, and that their value will be well understood. It is true that experience will be necessary to determine some points in its use. For instance, the most economical mode of preparing it in order to adapt it to the varieties of soil on which it is proposed to employ it. The blue marl especially requires an analysis in order to determine its composition. The Jersey marl contains potash, and this substance is regarded as the principal fertilizer in it; and I hope it will be found that potash and also phosphate of lime are elements of the marls of this State. These two are the expensive fertilizers, and are above all others to be sought for, for without them the cereals would cease to produce perfect seed.

I have not attempted to give a detailed account of our examination upon the Cape Fear, but simply a statement of a few facts which I supposed might be interesting to your Excellency, or so far as to satisfy you that the work is in progress. I am pleased with the attentions and intelligence of the gentlemen whom I have met, and the facilities which all wish to render, and especially the anxiety which is manifested in regard to the work. I am sometimes rather distracted to know where to go, the applications for examinations being so numerous.

Most respectfully, your obt' serv't.

E. EMMONS.

Correction.—In Mr. Reynolds' communication in our last, on the cultivation of the Pea, he is made to say he sowed the seed of the 1½ bushels Shinney, —it ought to have read "sowed."

THE INSPECTION OF GUANO.

To the Editor of the American Farmer—

DEAR SIR:—In the April No. of your paper is an article from Mr. T. W. Riley on the subject of Guano Inspection, which I will briefly notice. Mr. Riley denies that any difference exists in Peruvian Guano, says that all the cargoes are equally valuable; that the Peruvian Government have satisfied themselves of the fact, and that no better Guano goes to England than comes to this country. Granting that all the Peruvian Guano is exactly alike when it leaves the islands, is it not subject to damage from leakage of vessels and various other causes before it reaches our ports, which will materially alter its quality? Should not the amount of damage be ascertained? But it is not all alike—numerous and careful examinations made in this country and England prove the contrary—examinations made from carefully selected samples under the eye of the merchant. No man of any intelligence pretends to give the value of a cargo from the examination of a mere handful. We certainly can estimate the value of Guano as well in this country as can be done in Peru, and if it be all alike, why should the Agent object to our satisfying ourselves of its similarity as the Peruvian Government has done? If an article can bear the test of scrutiny, why should its owner object to scrutiny being made? Certainly a disinterested competent Inspector is as much worthy of belief as to his statement in regard to the analysis of Guano, as an interested dealer in the article. It may all be very well for the sellers of a manure to talk of its uniform purity; it certainly is their interest to do so, and to make others believe them if possible, but ought not the purchaser to be certain of that purity before he pays his money for it? The value of the money paid for the Guano is well known—why should not the value of the Guano received be also ascertained? If the Peruvian Government has satisfied itself of the uniformity of their Guano, is it not denying both capacity and honesty to the citizens of our State, to say that they cannot or will not make a fair inspection, when they have the same means as in Peru, and solemnly swear to do so? As to the difference between the Peruvian Guano in England and this country; the analyses there show it to contain an average of 17.41 per cent. of Ammonia; the analyses here does not show an average of more than 15 per cent. of Ammonia. This is the authority by which I speak, and surely it is as good as the bare assertion of the agent to the contrary. I have not stated in my Report, as Mr. R. says, that the importer sells it in England with a guarantee to contain 16 per cent. of Ammonia. I stated that it was sold in England with the guarantee to contain 16 per cent. of Ammonia. Now for the proof. I have at this moment before me an English newspaper (the Gardeners' Chronicle and Agricultural Gazette) of the dates of Jan. 3d, 10th, 17th and 24th, in which there is the following advertisement: "PERUVIAN GUANO GUARANTEED TO CONTAIN 16 PER CENT. OF AMMONIA, £9. 10s. PER TON, AND FOR 5 TONS OR MORE £9. 5s. per ton in dock." I have said that where the most rigid examinations are made, there will be sent the best article, and that the consumers of Guano should be guarded against natural differences and adulteration. Before the passage of the law for the inspection of drugs, an immense quantity of worthless articles were sent to this country. In the space of six months, more than 25,000 pounds of yellow bark were rejected at

the port of New York as worthless; opium was sent here and sold, purposely deprived of all its strength—the same was true of rhubarb root, of jalap, of myrrh, and various other medicines, upon whose purity the lives of our citizens were dependent. If adulterations are made in articles upon whose purity human life depends, have we any right to expect anything better in a manure upon which only the profits of a crop are at stake? Under the rigid examinations of the inspectors of the various ports, now pure, good articles come in the place of worthless adulterated drugs previously sent, and if proper scrutiny be made into the Guano, a similar state of things will take place—we will get a better article, or at least we will know what we do get, and pay for it accordingly. I give my thanks to Mr. Riley for the courteous tone of his communication, and hope that upon reflection he will not object that the merits of his Guano should be made known by the analysis of an honest, competent and disinterested Inspector. To the Editorial preface to Mr. Riley's communication, I have only to answer, that persons as capable of judging as those there mentioned, think that we should have a rigid Inspection Law. We have now in our market Guano from various places, differing very much in its value. We have the Peruvian, African, Penguin Island, Patagonian and Mexican, and we may daily look for supplies from other places. On the shores of our Northern Lakes, I have been informed that vast deposits exist very similar, I judge, to the Mexican Guano. The merchant who imports any Guano, will of course offer it for sale at a profit—how is the purchaser to know whether he can employ it at a profit or not? Shall he depend on the analyses made for the merchant? buy it blindly or take it by the examination of a disinterested third party—the Inspector? I am as adverse as any one can be to "additional clogs," unless a fair inspection be an additional clog. There certainly should be some clogs to prevent a comparatively worthless article from being sold at the price which only a good one is worth. That the present inspection has been useless—nay, worse than useless—I with you verily believe, and was I believe the first one to call public attention to it. This I have again and again done in various ways, yet nothing was published against the inspection of Guano until an inspection law was recommended by me that has at least the merit of endeavoring to do justice to the consumer. I might, Mr. Editor, show many reasons for the necessity of an inspection of Guano, but as you desired this article to be as short and as compact as possible, I will not here give them. The Legislature has the matter under consideration, and will no doubt act properly.

Hoping that I have not trespassed too much on your columns, I am, very respectfully, &c.

JAMES HIGGINS, State Ag. Chemist.
Baltimore, April 21st, 1852.

[*Believing that the changes which the State Chemist suggested, would be as little likely to be effective as the present system, which, he repeats, is "useless, nay worse than useless," we expressed the opinion, that the only result would be to place additional clogs upon the trade, and add to the expense of the article without any increased security to shield the consumer from fraud or imposition.—We have neither space or time now to enter into a discussion of this matter, but are prepared to do so, if it should be found necessary. We repeat, however, the firm conviction of our mind, that the ten-

dency of the proposed amendments will be to increase the expense of the article, to the farmer, and be attendant with no corresponding benefit—and that we agree with the State Chemist that the present law is worse than "useless," for it enables dealers on the borders of our State to sell the article cheaper than it can be had from responsible merchants in this city.—*Ed. Amer. Farmer.*]

For the American Farmer.

MODE OF USING GUANO—EFFECT OF SOAKING SEEDS IN CHEMICAL SOLUTIONS.

CAROLINE Co., Md. Nov. 18, 1851.

Mr. Editor:—About two months ago I subscribed to your valuable paper, and a short time afterwards, I wrote a long letter, giving you the results of my experiments with guano, guano and plaster, guano and copperas, guano, copperas and plaster mixed in different quantities. I did not send that letter,—I feared to encroach upon you.

For eight years I have been advocating the use of those salts with guano, and I have used them always, particularly in my stables, pound and garden house. The constant good results induce me to keep using them. I would be very sorry to let my hog pen disturb my neighborhood with its disagreeable smell, when, with a few pounds of copperas, I can increase the fertility of its manure, and prevent the escape of unpleasant emanations.

I have been farming this year, and have used ten tons of guano in eight months. My corn was injured by the drought, for I had no rain from May until the corn was tasselled. My soil being a white clay soil with red clay bottom, I consequently suffered very much, and did not raise a full crop. But I have the consolation to think, that next summer my wheat will pay me: for all my guano is imprisoned in the ground with plaster and copperas. Intending to have my field in clover next spring, I gave the ground a light dressing of guano this fall.

In your number of this month, Mr. T. S. P. asks a good many questions, which I have no right to answer; but he puts forward ideas which every one has a right to discuss. He is too positive in rejecting the use of plaster with guano—for, if we look attentively at the constituents of guano, and remember that when two soluble salts are mixed, and cannot form together a soluble and insoluble salt, the dissolution does not become troubled; and it may happen that there be no decomposition whatever; we may differ with Mr. T. S. P.

The sulphate of lime is a soluble salt, for it will dissolve in 250 or 300 parts of water. All the salts of guano are soluble, except the oxalate of lime. The sulphate of lime will not change the nature of the oxalate of lime. Fourcroy, Vauquelin, Voelckle, have not found carbonate of ammonia in guano; the latter tells us that the urate of ammonia undergoes a change in the soil, and becomes carbonate of ammonia. It must be from the carbonate of lime of the soil.

By mixing plaster or copperas with guano, we prevent the formation of the carbonate of ammonia, after the guano is in the ground.

In 100 parts of guano there are 9 parts of urate of ammonia, which we save from evaporation.

The oxalate of ammonia is converted into sulphate of ammonia and oxalate of lime.

I contend that we gain by the operation; and if all the salts of guano were decomposed, which is

not the fact, I do not know that we would lose a great deal, for the sulphate of ammonia is one of the most powerful manures we can have.

I always dampen my guano and plaster with a solution of copperas, and my boys would be sorry were I to discontinue the practice, for the mixture is perfectly inodorous.

One of my friends of the United States' Senate, sent me in 1846, a copy of the reports of the Commissioner of Patents. I perused in it a very interesting article upon soaking seeds in chemical solutions: "The exhibition of the plants raised from soaked seeds, attracted the attention of all at the Society's Show at Dundee, in August 1842. The seeds were soaked in solutions of sulphate, nitrate and muriate of ammonia; in nitrate of soda and potash, and in combinations of these: seeds of wheat, steeped in sulphate of ammonia on the 5th of July, had by the 10th of August, tillered into nine, ten and eleven stems, of nearly equal vigor, while seeds of the same sample, unprepared and sown at the same time in the same soil, had not tillered into more than two, three or four stems. The salts were perfectly neutralized, and from ten to twelve measures of water were added."

A short time after reading the above, and supposing that the Commissioner of Patents would not report a statement which was not correct, I resolved to judge for myself. I sent to Baltimore for a barrel of sulphate of ammonia, and found it to be impure; I then made from the carbonate of ammonia, some pure sulphate of that salt, and I neutralized it. I soaked in it a handful of corn, which I planted on the first of June, near some which was knee high, and which had been manured. My soaked corn was put in a piece of ground reserved for watermelons, and unmanured. The result surprised every one; the stalks were thicker and higher, the leaves longer and greener, the ears more numerous, and in fact the corn was as good again as its neighbour. Many persons in Denton witnessed those results, and the owner of the lot, who now resides in Baltimore, was present at my experiments from beginning to end.

From this circumstance, I think that Mr. T. S. P. is wrong in speaking against sulphate of ammonia; and I think he is too exclusive in his opinion against plaster.

Yours respectfully, C. O. P.

[The above communication was intended for publication some months ago, but was accidentally omitted.—Ed.]

MANAGEMENT OF NEGROES.

To the Editor of the American Farmer.—

Feeling it incumbent on me as an officer in the association mentioned below in this communication, in fulfilment of the expectations of those who caused me to be elected, as "Corresponding Secretary," I will take the liberty of calling the attention of your readers to a question of the greatest importance to the agricultural interests of the southern portion of our confederacy, and which seems to be entirely overlooked by agricultural writers. I mean the management of negroes. This question not only involves our pecuniary interests in a high degree, but likewise affects our domestic happiness and comfort beyond all others. I could bring forward a catalogue of evils that grow out of this question that would appal any other than those who are familiar by long habit with its gloomy details. I am surprised that this subject, which is of such immense

magnitude, has not been broached in the Agricultural societies of the South. I do not recollect to have seen a word on the subject in any agricultural journal, save a publication, years since, in a journal published in the State of Alabama. It was a prize essay "on the management of negroes." And I must do the author the justice to say, that I learned more from the perusal of that production, than I ever did in a practical experience from my cradle. You could not do your readers a greater service than to look up this essay and publish it in your wide-circulating and valuable journal.*

It is a common thing to charge all the blame upon negroes, when they come short of our expectations, but if an impartial judge should be called upon to decide, it would be found that some of the blame would attach to ourselves. I do not claim for my method any high degree of merit, as it is not original, but I will say that since I have adopted it, I have had more comfort with my servants, than I ever had before, although I cannot say that I have always been on "beds of roses" since its adoption.

There are three modes of management which can be carried into practical management. 1st. Correction; 2d. Coaxing, by kindness; and thirdly, a mixed system of rewards and punishments. The latter I prefer. I give them certain privileges, which are to result in pecuniary gain; I then establish a code of laws, in writing, stating the offences to be punished—classify them, and affix to them the penalty in dollars and cents. I am careful that the property shall only be converted into money, at my order, and the money to be left in my hands until the termination of the year. This I have found to be a powerful lever in my hands to enforce obedience and fidelity. But in the management of negroes there is one important point to gain—i. e. you must learn to manage yourself. Anger begets anger. As the wise man says, "a soft word turneth away wrath." In the essay above mentioned, a low tone of voice is recommended in speaking to negroes. This is a wise suggestion, as it must necessarily be attended by a low tone of temper. All conversation with a negro is forbid, except about his work. This is important; he should be kept as far from his master as possible, but with no accompanying harshness; he ought to be made to feel that you are his superior, but that you respect his feelings and his wants. No negro, in my opinion, will be faithful who has his absolute wants unsatisfied; I mean food and clothing.

I throw out the above hints, hoping that some one of your numerous readers may be induced to "give in their experience" on a subject of such vital importance to the happiness, comfort and prosperity of the South. Would not this object be promoted, were the Agricultural Society of Maryland to offer a premium for the best essay on the subject discussed above?

R. S. BLACKBURN,

Cor. Sec. of the Valley Agr. Soc. of Va.

March 12th, 1852.

[*We would be obliged to any friend who would furnish us with a copy.—Ed.]

The New England Cultivator.—The first numbers of a monthly journal, bearing the above title, have been sent us from Boston. It is devoted to "agriculture, horticulture, mechanics and rural economy." The numbers before us combine neatness of dress with well filled pages, and gives promise of future usefulness; we, therefore, trust its proprietors may find a reward adequate to their own zeal, industry, and talents.

REAPING AND MOWING MACHINES.

THIS advertisement is not designed so much to call the attention of farmers to the subject of Reaping Machines, as to meet and correct the misrepresentations of other parties. In the April No. of the American Farmer a comparison is made between the sickle edge and the sharp ground edge. The chief merit claimed for Mr. McCormick's Reaper over mine, is in the sickle edge, and it is even insinuated that the Great Medal was awarded on account of the sickle edge. Now I would hereby distinctly say to all who are not informed of the fact, that McCormick had not the exclusive right to this kind of edge, and I have as good a right to make the sickle edge as McCormick or any other person.

My Machines have given such entire satisfaction with the sharp ground-edge, that it has not been thought advisable by me or my patrons to make any change, but to correct any misapprehension on this point. Farmers everywhere are hereby informed that whoever wishes one of my Machines with the sickle edge, can have it by giving me timely notice. Mr. McCormick's agent in this city has issued a pamphlet, in which he says: "The following extracts from Mr. McCormick's reply to Mr. Hussey's pamphlet relating to the celebrated trial of Reaping Machines in England," &c. &c. Now, the reply has been published by Mr. McCormick in Washington, in pamphlet form, and several copies of it sent to his agent in this city, but has never reached my hands, altho' I have applied to his agent for a copy, but have not been able to obtain one. The inference is deducible, that Mr. McCormick has published a pamphlet for private circulation to operate against me, containing such matter as he wishes to withhold from my inspection. Any person who is in possession of such a pamphlet, printed by Gideon & Co. in Washington, will do me a favor by sending it to me by mail.

There is very little in these "selections" worthy of notice by me. Mr. McCormick insinuates that I was afraid to meet him in the field in England, while he was there, as he heard nothing of my movements after the trial at Mechlin. He knows very well that it was a long time after that before I succeeded in getting the Machine out of the Exhibition room; when it did go out, he was present—it was taken directly to Kent, thence to Yorkshire, thence to Woodstock, performing in every place to the admiration and astonishment of all, and heralded in the public prints from one end of England to the other—and then came the Cleveland trial—none of which was done in a corner, as he and Mr. Dodge know very well. It will be seen by the "selections" of the Agent, that Mr. McCormick enumerates three important points, which he says were not submitted to the Cleveland Jury—to wit: 1st. "The superiority of the sickle edge over the smooth edge." In reply to this, it will be sufficient to say, that the Jury saw the smooth edge, as he calls it, cut several swaths across the field most perfectly on the "Hurricane day," when the grain was soaking wet, while the sickle edge could not be made to cut at all on that day, on account of the heavy rain. This is not in accordance with his oft-repeated assertions that my Reaper would not cut wet grain. I may here remark, that this was the hurricane trial which has been so often sneeringly alluded to, when in fact, the Jury announced to the company that this trial was void, and should go for nothing, altho' my Machine cut so perfectly, in spite of wind and rain, and Mr. McCormick's made a total failure. If any injustice was done on that day, it was done to me, by the Jury omitting to report the facts.—(See the official report of the jury, published in my pamphlet, and also in the American Farmer for February.)

2d. The importance of the reel when the grain is leaning forward.—The English writers say, in describing the trial on the second day, when the weather was good and the wheat in good condition to be cut, that my Reaper cut the grain well where it leaned forward, while McCormick's scoured over it, taking the heads only, and leaving the whole straw standing. This settles the great reel affair, so much boasted of.

3d. And what is set forth to be the strongest point, is, the side delivery.—My side delivery was tested at the Cleveland trial, as his own quotation from an English paper, on a former occasion, will show. There those points were all tested at the Cleveland trial, as English publications clearly show, although Mr. McCormick states that they were not.

Mr. McCormick accuses me of making a display of garbled and partial notices from the English press, and brings forward, as a sample, the strongest case of course, which he can discover. This great unfairness on my part, was the undesigned omission in my pamphlet of the trial in Lincoln, where my attention has been called to the subject, I have looked for in my pamphlet, and was disappointed in not finding them, viz: "McCormick's Machine did not cut the barley so well as Hussey's. It cut it much too high, as the crop was very much laid; the heads only in many cases were cut off." He has obliged me by publishing this remark himself—he would oblige me much more by republishing many other notices by the English press which I was obliged to omit, for I could easily have swelled my pamphlet to five hundred pages, of equally complimentary matter from the English press. He makes the quotation to show, that his Reaper was set to cut too high. I can prove by English authority, and by the man he sent to England, that his Machine was altered in England to cut low to suit that particular occasion.

Mr. McC. says that the Challenge was "erroneously given." No doubt of it—he knows my Machine too well to run the risk, if he had remained in England; in that case the challenge must have come from me.

With regard to the letter of Mr. Dodge, the acting Commissioner, I have but little to say. It seems to have been written for the especial benefit of Mr. McCormick. I expected this. I did not comply with the request of the American Commissioner to put my Machine into his hands, hence I had no favors to ex-

pect from that quarter. I will only remark, that Mr. Dodge expressed the opinion to me, that I could safely go to Paris for a few days, as the second trial would not be likely to take place until after the return of the prominent jurors who had then gone there; and if the trial should be notified, he would let me know. Now please take notice, that Mr. Dodge says he received notice of the second trial on the 3d, and that Mr. McCormick arrived in London on the 4th, and that the trial took place on the 5th. I was in Mr. Dodge's office every day before I went to Paris. I met Mr. McCormick in the Exhibition room near Mr. Dodge's office, which must have been at least two days after Mr. Dodge had received notice of the trial; I saw Mr. Dodge every day, yet I was permitted to leave London ignorant of that notice. Mr. Dodge says that my Machine was under the direction of Edwards, Sandford & Co., than whom no men ever attended more closely to the interests of those who committed goods to their care. I can subscribe most heartily to this, and believe they could operate my Machine fully as well as any other London merchants, who never held a plow or wielded a pitchfork. He also says he sent a Mr. Avis with my Machine, a practical mechanic. I have no doubt but that that common, but conceited labourer could work my Reaper at the first start, as well as Fox & Henderson, the builders of the glass palace, could, neither of whom had ever seen it cut a straw.

Mr. Dodge says he knew no party, existing for either of the Machines. Perhaps not; but it was a subject of remark with many Englishmen, that a certain American who was one of the Exhibition Jury, appeared too much interested for McCormick, so much so as to excite suspicion; this American was at the trial at Mechlin, and was very officious; as I am told. It was a very wet and unfavorable day, when the Jury saw the failure of my Machine, they in the true spirit of generosity, concluded that the time was too unfavorable for a fair trial, and proposed to adjourn to a more favorable day for so important a contest, involving so much of interest to the competitors—but the American gentleman alluded to, was not a critical observer. I was in, and that McCormick was well equipped for the battle, by his craft being skillfully manned, and insisted that McCormick's Machine should be tried, and evinced a vehemence that surprised many Englishmen present. This was nothing less than an adversary's game, and we may well wonder at it. When McCormick's man had by dint of exertion succeeded in cutting a few yards, (for the cutting on that day was estimated by yards,) three cheers were proposed for the American Reaper, this American (as English gentlemen present inform me) was the first to doff his heaver. Now I do not accuse any one, but in connection with these facts, I will relate an incident. One day in a conversation with a clerk who acted in some capacity in Mr. Dodge's office, I put this question to him: "Why is it that Mr. McCormick appears to have so many more friends about him than I have?" His immediate reply was in these words: "Do you know what makes friends?"—to this I made some natural reply, when he as promptly said, "Money makes friends."

With regard to Mr. Rives' letter, I need only say that the honorable gentleman was writing more for the Nation and for his own native State, than for any individual. Putting State pride aside, what would his letter have been, if he had not written it until after he had heard of the Cleveland trial? It is a very pretty letter, and any one of common understanding can see how to take it. Although the Cleveland trial took place five days before the date of his letter, the jury did not report until October.

In this controversy between my opponent and myself, I am solicited that nothing but the truth should be placed before the farmer, for whose benefit of course we both labor. I am willing to have my statements sifted, at the same time I must caution farmers against being misled by either of us. As a specimen of the means used to misify, I will instance the following:

Mr. McCormick published a long communication in the Chicago Journal of Dec. 13, 1851, in which he attempts to ridicule the Cleveland trial and the award of the jury, and professed to quote from impartial and reliable sources to show what was the real opinion of Englishmen with regard to the two Machines, the Cleveland jury award and the unanimous judgment of the 1200 spectators, in his view being unworthy of confidence. The quotation is as follows:

"From the Farmers' Herald of the City of Chester, (England) (alluding to the Cleveland trial).—The whole of the work by both Machines taken together, did not amount to two acres; no movement were made, at the same time, as Hussey's Machine alone operated on the first day, on account of the weather, during less than half an hour; Mr. Farington, the Secretary, in his speech the same evening, stated that trial to be void; that six of the jury withdrew, and six others were named in their stead. Numerous testimonials and reports of the success of McCormick's Machine clearly show that McCormick's serrated sickle is the true cutter for grain, and that it will stand its work for any length of time required in practice, with a common laborer to work it, whereas Hussey's shears soon lose their edge, and then force the straw into the slots, causing the consequent stoppages observed at all the trials of the machine.—See reports of those at Hadham Hall, Barnard Castle."

Those who have had patience to read thus far, will probably be a little amused to learn that this very impartial and disinterested statement was written by Burgess & Key, McCormick's London agents, the identical men who challenged me to the Cleveland trial. It is word for word in an article over their signatures, which first appeared in the London Morning Chronicle of Oct. 23, 1851, nearly a month after the trial—and who can doubt for a moment that that paper came over to McCormick by the first packet. It should be understood that whenever any "stoppage" was observed in the grain was in such bad condition that McCormick's Reaper could not have cut any of it, whereas my Reaper cut it well, altho' an occasional "stoppage" might have been "observed." The following is one of the reports of the trials alluded to in that very impartial and disinter-

quoted quotation produced by Mr. McCormick to show the reliable opinion of the English press:

"The undersigned President, Vice-Presidents, and members of the Barnard Castle Agricultural Society and others who have witnessed the working of the American Reaping Machine, invented by Mr. Hussey, do CERTIFY THEIR UNQUALIFIED APPROVAL OF ITS OPERATIONS AND ENTIRE SUCCESS."
LORD HARRY VANE, President.

W. F. WHARTON, Vice President.
JOHN MITCHELL, V. P., Forcett Hall, Yorkshire, Esq.
J. S. Edgar, M. D., Barnard Castle, Esq.
John Dickinson Holmes, Barnard Castle, Solicitor.
George F. Harrison, Forcett, Yorkshire, Farmer.
Edward South, Keverston, near Darlington, Esq., Farmer, and Assistant Draining Commissioner.
Thomas Robinson, Hutton Hall, near Richmond, Yorkshire, Esq., Farmer.
Richard Kay, Forcett Valley, near Darlington, Esq., Farmer.
William Harrison, Greta Bridge, Yorkshire, Esq., Farmer.
Thomas Carter, Seales, near Richmond, Esq., Farmer.
Jno. Whitfield, London, Esq.
Rev. Thomas Boys Croome, Scotland.
William Watson, Junr., Barnard Castle, Solicitor.
J. R. Monkhouse, Barnard Castle, Manufacturer.
Samuel Nelson, of Seale House, near Stalndrop, Durham, Esq., Farmer.
William Thompson, Lanehead, near Ovington, Yorkshire, Esq., Farmer.
John Edwaite, Bainesse, near Catterick, Yorkshire, Farmer.
Rev. George Dugard, Barnard Castle, Incumbent of Yorkshire, Farmer.
WILLIAM WATSON, Secretary of the Barnard Agricultural Association.
I will leave these facts to the reflection of the reader without further comment.
MAY 1-11 OBED HUSSEY.

Pure Peruvian Guano.

SOME erroneous impressions concerning the Guano trade have been created in the minds of many farmers in this region of country which, in justice to them as consumers, and to myself as a dealer, it becomes me to correct.

The monopoly of pure Peruvian Guano is now, by contract with the Peruvian Government, in the hands of a firm in Lima. This firm has but one Agent in the United States, who is Theodore W. Riley, Esq. of New York, and he alone is competent to appoint any sub-agents within the United States.

In reply to a letter from me desiring information as to the appointment of an agent or agents for the District of Columbia, Mr. Riley, on the 5th inst. wrote as follows:

"Regarding the advertisement of Messrs. E. Pickrell & Co. (in which they announce their appointment as agents for the sale of Peruvian Guano in the District of Columbia) it can have no reference to me, and I have no objections to the public knowing it."

Messrs. Pickrell & Co., then, can only be the sub-agents of parties who purchase Guano in New York or Baltimore, and of course cannot, as their advertisement is calculated to induce consumers to believe that they can, sell any quantity, great or small, at any lower rates than either myself or any other direct purchaser from Mr. Riley. I buy directly from Mr. Riley, on as good terms as any other of his customers, and all that I buy is either transferred from the ship in New York or Baltimore, immediately to the District vessel, or is brought to me here direct from the Chincha Islands, and it is arranged between Mr. Riley and myself, that direct cargoes from the Islands shall come to no dealer in the District of Columbia but me. I am now expecting a direct cargo, which will be sold on its arrival, either from the vessel, or from the warehouse, on the most reasonable terms.

It is not agreeable to me to make publications of this sort. I neither fear nor object to fair competition in my business, but I cannot combat unfairness with unfairness, and have therefore no other defence against it than to expose it.

All my old customers, and all others who may become my customers, may confidently rely upon it that there is not any "appointed Agent for the District of Columbia" in the sense in which they have been induced to understand that term; nor any dealer in the District or elsewhere who can or will sell to them on better terms than myself.

FITZTHUGH COYLE,
Washington City, March 26.

MAY 1-11.
Patent Insulated Lightning Conductors,
Invented by J. SPRATT, Cincinnati, Ohio.

MANUFACTURED and Sold, wholesale and retail, and put up by MERRELL & CO., HAND HOTEL, NORTH PACA STREET, BALTIMORE. Please notice the following recommendations:

The Lightning Conductors on the plan of J. Spratt, of Cincinnati, appear to be very well devised, and in point of mechanical construction are the best I have ever seen.

It is to be hoped that the use of these rods may become general as an important auxiliary defence against a danger which

must be regarded as of no ordinary magnitude, to which all buildings are liable.

B. SILLIMAN, JR.,
Professor of Chem. in the University of Louisville.
LOUISVILLE, 27th January, 1851.

BALTIMORE, April 14, 1852.

I have examined the Lightning Conductors of J. Spratt, designed for the protection of buildings, &c. They appear to me to be constructed on correct scientific principles, and to be manufactured with great care and skill. I have seen no apparatus better adapted to the purpose for which it is designed.
N. H. SMITH, M. D.

To the Board of Managers of the Maryland Institute:

The undersigned Committee, to whom was referred the consideration of the Insulated Conductor made and patented by J. Spratt, Cincinnati, Ohio, beg leave respectfully to report, that they have examined the model submitted to them, and highly approve it, believing that it is better calculated for the conduct of the electric fluid than any other that has come under their observation.

FRANCIS A. FISHER, Chairman.
GEORGE R. DODGE,
C. W. BENTLEY.

BALTIMORE, April 12, 1852.

J. Spratt's Lightning Rod Conductor was submitted for examination, and the following certificate was given:

In the recommendation by Prof. Silliman, Jr., we fully concur.
B. SILLIMAN, SEN.
JAMES D. DANA.

YALE COLLEGE, Jan. 6, 1852.

BALTIMORE, April 12, 1852.

Having examined Spratt's Patent Lightning Conductor, and heard the explanation of its advantages over other contrivances for a similar purpose, I am disposed to concur in the strong recommendation of it by the two Fire Insurance Co's (the Protection Co. and the Aetna Co.) of which I am the Agent in this city. And I should be glad if the wish expressed in the certificates of Mr. Conner and Mr. Loomis was generally complied with, and that the risks insured by this agency, especially in the country, were protected by the use of this improved Rod.

J. G. FROUD, the Agent,
MAY 1

Baltimore, April 15, 1852.

Kentish's Artificial Guano:— ESTABLISHED FIVE YEARS.

Price, \$20 per Ton, of 2000 pounds.

CERTIFICATES.

Extract of a Letter from E. B. Addison.

ALEXANDRIA Co. Va. April 23, 1851.

Dr. John H. Bayne, President of Prince George's Co. Agricultural Society, Maryland, has desired me to inform you that last spring he used African Guano, Poudrette, Peruvian Guano, and your Prepared Guano on Potatoes. The first two were distanced, but the result from the Peruvian and yours, was about equal. He pronounces your Prepared Guano to be a very excellent article, and esteems it highly.

Extract of a Letter from G. Dufsey, Va. 5th Sep. 1851.

"I used your Prepared Guano, last Fall, on Wheat, alongside of the best Peruvian Guano, which cost me \$48 per ton, and there was not much difference in the effects."

NORFOLK Co. Va., July 3, 1850.

Sir.—I have used your Prepared Guano on Peas and Potatoes, with great success, and I give it the preference to any manure I have ever employed.

To Mr. C. A. Kentish. E. M. MARCHANT.

At a meeting of the Farmer's Club, held at the American Institute, New York, on the 18th December, 1851, the following communication was made:

I present a specimen of Turnips raised upon my place, last season, which you will recollect was (on account of the dry weather) an unfavorable one for turnips. The specimen is not the largest grown, by any means, although this weighed, when first pulled, over 4-3-4 lbs. I used in the spring of 1850 about three barrels of Prepared Guano to the acre, and planted with Sweet Corn, which produced a large crop. I then cropped with Potatoes, which was also a good crop. After which, I put in Turnip seed, without any further manuring than the 3 barrels above mentioned, and the result was far beyond my expectations.

Extract from the American Farmer, Balt. Md. June 1851.

"KENTISH'S PREPARED GUANO.—The Pamphlet contains many recommendations of it, but the attestation of such a man as Dr. Bayne, is the best authority for us."

Seth Perkins, Fairfax Co. Va.

E. R. Gale, }
J. Whitehorn, } Norfolk Co. Va.
Hugh Bates, }
Mrs. F. Allen, }

Circulars, containing numerous other Recommendations can be had at this office. MAY 1-4.

SINCLAIR & CO.'S
 OLD ESTABLISHED
SOUTHERN AGRICULTURAL
Implement Works
 AND
SEED HOUSE,
 No. 58, 60 and 62 LIGHT STREET,
 BALTIMORE.

THE experience of thirty years relative to the proper construction of Implements and Machinery for the use of **SOUTHERN FARMERS and PLANTERS**, affords us an advantage that time and experience alone can give, and for the interest of our customers as well as our own, we solicit a continuance of their patronage, which will always command our most careful consideration, and by our having the advantages alluded to, insure them against possessing a stock of Implements of light and inferior construction, and, as regards the South, of doubtful utility. We offer for sale the following synopsis of our stock of

IMPLEMENTS AND SEEDS,

and refer to our Illustrated Catalogue, (just published) for particulars, viz:

P L O W S .

Of **PLOWS**, we have in our collection the largest assortment to be found in this or any other country, including the

MARYLAND SELF-SHARPENING,

with a Mould Board of unrivalled form, made suitable for the roughest lands and to economise labor; also the Sinclair & Moore and Patuxent pattern, for clay and light loam; the Echelon, with 2 and 3 mould boards set regular for seeding and cultivation; several excellent Eastern and Western patterns; Subsoil, Hill Side Plows, &c.

ROLLERS, HARROWS, CULTIVATORS, Grain and Hay Rakes, Ox Yokes; Grub and Bush Hooks, Churns, Post Hole Augers, Scythes and Snaths, Plow Harness, Screw Wrenches, Hay and Manure Forks, Straw and Hay Knives, Grubbing and Weeding Hoes, Ox, Trace and Halter Chains, Shovels, and Farming Tools generally.

WHEAT, CORN AND SEED DRILLS.

The entire success of our Patent Wheat Drill last season, and the increased demand for them, has induced us to manufacture this article extensively for the approaching season. Price \$90.—The Corn and Seed Drill made on same plan, \$20.

CORN AND COB CRUSHERS.

Of these we make several kinds—price \$25, 30 and \$35. For plantation use, those at \$30 are preferable and excellent in every particular.

HUSSEY'S

REAPING AND MOWING MACHINES.

Without regard to the unrivalled success of Hussey's Reaper at the late London Exhibition, we have determined to add them to our stock of Im-

plements. Their simplicity and strength of construction and manifest perfection of operation, must result in their general adoption.

CORN-SHELLERS.

The Improved Single and Double Spout (price \$10 a 16) are our best hand power machines; and the Cylindrical at \$30, for large crops. Several other patterns are made at \$16 a 80.

STRAW AND FODDER CUTTERS.

The Two Knife, or Cylindrical, rates first in value; of these we make 4 sizes, at \$25 to 45.—Green's Double Cylinder Hay and Straw Cutters—price \$10 to 30. Common sorts, \$5 to 12.

DOMESTIC CORN MILL.

Preferred size for plantation use, is the 30 inch Cologne and French Burr Stone—price \$110 a 135. Iron Plate or Negro Hominy Mills, \$9 a 10.

HORSE POWERS.

Sweep and Railway, of various sizes, for 1 to 12 horses—price \$75 to 135.

THRASHING MACHINES.

Made with open Wrought Iron Cylinders—most excellent and effectual—price \$35 to 60.

WHEAT FANS,

With Separating Fixtures, and warranted equal in efficiency to any in this market—price \$25, 30 a 35.

PLOW AND MACHINE CASTINGS,

Of all the various sorts suitable for Plows or Machinery—prices reduced.

GARDEN AND FIELD SEEDS.

Our stock of Garden Seeds are principally from the Clairmont Gardens, grown under our immediate supervision—such as we find necessary to import, are obtained from seed establishments in the South of Europe, where they become quite as well matured as those raised in this latitude. The following prominent kinds, or a synopsis of our stock of Seeds, are in store and for sale, viz: Mangle Wurtzel; Large Red and Yellow Globe Rutabaga; Hybrid and Large White Table Turnip; White Sugar and Blood Beet, *extra fine*; Large White Field and Table Carrot, superior; Large Heading, Savoy and Early Cabbage Seeds; Early Corn, Cucumber, Lettuce, *early and late*; Melons, Onion Seed, Parsnip, Early and Late Peas, *several new sorts*; Early and Late Potatoes, Radish Seed, Squash, Tomato, Herb Seeds; Flower Seeds, 300 *fine sorts*. Also, American Grass Seeds, of every description—Lucerne, Vetches or Tares, English Rye Grass, Sweet Scented Vernal Grass, English and American LAWN GRASS SEED, Hard and Sheep Fescue Grass, Crested Dog's Tail, &c.

FRUIT AND ORNAMENTAL TREES AND PLANTS.

Orders will be received for the Clairmont Nurseries, now conducted by Wm. Corse, whose assortment of Fruit and Ornamental Trees, Plants, &c. is extensive, carefully grown and orders put up with care.

March 4

The thorough-bred Horse and Premium 3 year old of 1850, BEVERLY.



HAVING procured a most experienced groom (old Kell), and failed to get my full price for BEVERLY, he will make his first season, commencing 1st of April, and ending 25th of June—at Leonard Town on Mondays and Tuesdays, Great Mills or Clifton Factory on Wednesdays, St. Inigoe's on Thursdays, and on Fridays, returning home on Saturday of each week during the season.

He will cover mares at the very low price, considering the fine size and high blood of the horse, of \$15, payable by \$10, if made during August Court; \$30, insurance—insurance forfeited, if the mare is parted with. No liability for accidents, and 25 cents to be paid to the groom for each mare put.

DESCRIPTION AND PEDIGREE.

Beverly is a rich dark bay, upwards of sixteen hands high, of the points and form for action and durability. His sire, Antropus, by imported Priam, out of Aurora, the dam of winners of stakes, &c., of the stud of Wm. H. Tayloe, Esq. of Mount Airy, Virginia.—His dam, Ellen Hooe, by imported Margrave, out of Lady Culpepper, by Carolinian, (son of Sir Archy,) out of a full brood of those renowned horses Deference and Revenge, by the distinguished Florizel, (sire of the granddam of Boston, the champion of the American turf.) By tracing the full pedigree in the American Turf Register, vol. 3d, pages 103, 354 and 354, and such books, the public will find that Beverly combines the best blood of England of late years, such as Priam and Margrave, (Derby and St. Leger animals—renowned, too, for their descendants), and descended from the most renowned horses of our own land, such as Sir Archy and Florizel, near lineal ancestors of the unsurpassed Boston; and breeders may expect large, active and durable colts, instead of inactive, open built, or meaty chumps, worth, really, for active service, less than the price of the season. Mares from a distance will be taken care of at Leonard Town on the usual terms—free pasturage, and grain, if required, at market prices; but no responsibility for accidents or escapes.

LEONARD TOWN, March 11, 1852.

H. G. S. KEY. Ap. 1-21



C. H. DRURY, Hollingsworth street corner of Pratt—Head of the Basin—having completed his establishment with Foundry connected, for the making of his own Castings, is prepared to furnish all varieties of AGRICULTURAL IMPLEMENTS and CASTINGS, made to order, of the best material.

The following is a list of PLOWS kept constantly on hand: Davis, of the different numbers, for wrought and cast shears, S. & M., Chenoweth, Wiley, 2 and 3 furrow, No. 0, Hill side, No. 1 and 3 Connecticut—Beach Improved or Posey Plow, with common Davis cast shear—Self-sharpener or wrought shear—Corn Cultivators, plain and expanding—Tobacco do.—Wheat Fans—Corn shellers with double hopper—Old Vertical and Virginia shell—Harrows—superior Pennsylvania made Grain Griddles—Revolving Horse Rakes—Cylindrical straw Cutters, &c. &c. Horse Power GRIST MILLS, a very useful and saving article, and coming into general use. HORSE POWER AND THRESHING MACHINES, of these I need not say any thing, as wherever they have been in use any time, they are preferred to all others.

C. H. D. will this year make a smaller size Power & Thresher, (price of Power, \$100, Thresher, \$50, Band, \$10, or when taken together, complete, \$150 cash.) Persons in want of implements made of the best material, and put together in the strongest and best manner to answer the purpose for which they are intended, are invited to call on the subscriber. Jel

Bone Dust and Poudrette.

BY the request of my customers, I have made considerable improvement in the machinery for GRINDING BONE, and am now prepared to furnish a fine article, which acts quicker and more powerfully, as I extract no glue from the bone, or use any Chemicals, leaving the Bone Dust in its natural or pure state, weighing from 55 to 60 lbs. per bushel. The Poudrette is as good as can be made, and will be sold low. Apply by letter, or at the Factory on Harris' Creek, Baltimore, Maryland.

REFERENCE.

D. M. Perine, Lloyd Norris, Wm. Baker Dorsey, G. W. Lurman, W. B. Stephenson, W. H. Ross, J. Q. Hughtlett, J. W. Randolph, Capt. C. Wright, J. Tyson, Jr., T. Jef. Rusk, Wm. S. Bond.

N. B. Orders left with the Office of the Farmer will be attended to.

On In December and January, I will sell my Bone Dust at 50 cts. per bushel. Oct. 1.

POUDRETTE, &c.

POUDRETTE, in lbs. at \$1.25 to \$1.75 per bbl. Pulverized Burnt BONES, in lbs. at 1 cent per lb. Pulverized Bituminous COAL, at \$1.35 and \$2 per bbl.—For sale by WILLIAM CHILD, No. 78 South street, Bowly's wharf.

TO FARMERS.

THE Subscribers have in store, and offer for sale at the very lowest market rates, PERUVIAN GUANO, imported this season in the Barque

Rio Patagonian Guano in bags, a very superior article. 1000 bushels Ground Bone, in barrels suitable for shipping.

300 bushels Clean Clover Seed
Ground Plaster in barrels.
Prime Timothy Seed.
Reynolds' Superior Corn Sheller.
Fresh Millet Seed.
Rock Salt for Salting Stock.
Mammoth Corn for Seed.

Fish, Bacon, Tar, Renovator, &c.

They guarantee the purity of all Guano passing through their hands, and every attention given to the proper shipment of articles ordered. Address,

W. WHITELOCK & Co.

mh 4t. Corner of Gay and High streets, Balt.

TO FARMERS.

THE undersigned, by this method, would appraise the Agricultural community, that he is still engaged in the manufacture of the renowned Wiley, Empire, and other choice Plows. He also manufactures and has for sale, a number of the best and most efficient Farming Implements in use. Call before purchasing elsewhere, as his terms are such as cannot fail to please. All implements guaranteed.

AGENTS for the Wiley, Empire, Boston, Woodstock, and other Plow Castings. A. G. MOTT.

At the old stand, No. 38 Ensor, street, and at No. 51 M. Paca street, opposite the Hand Tavern, Balt. mh-1.

LIME—LIME.

THE undersigned having purchased of E. J. Cooper the most extensive Lime Burning Establishment in the State, is now prepared to supply Agricultural and Building LIME, of superior quality, to farmers and others, on accommodating terms, from his Yard, at the City Block, or delivered at the several landings on the Chesapeake Bay and its tributaries, and pledges himself, by strict attention and punctuality, and a determination to do justice, to merit a liberal share of patronage. Any orders addressed to him through the Baltimore Post Office, or left with C. W. Burgess & Co., No. 60 South street, one door above Pratt, will be promptly attended to.

Feb. 1-ly*

JAMES L. SUTTON.

LIME.

THE subscribers are prepared to furnish Building and Agricultural Lime at the depot on the Back Basin, corner of Eden and Lancaster-sts., which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with WILLIAM ROBINSON, No. 15 Hollingsworth-street, near Pratt.

tf FELL & ROBINSON, City Block

ROBERT B. PORTER,

(Successor to John Buck, Jr.)

IMPORTER OF HARDWARE,

AND dealer in Bar Iron, Steel, Castings, Springs, Axes, Mill, Pit, Hand and Circular Saws; Axes, Hatchets, Wrought and Cast Spikes and Nails; Patent Horse Shoes, Anvils, Vices, &c. Agent for Rees & Hoyt's Premium Leather Bands, Goodyear's Metallic Packing—Gilders' Foundry and Smiths' Bellows, for sale on best terms at mh1 No. 58 PRATT STREET, BALTIMORE. 3t



A GENCY FOR THE PURCHASE AND SALE OF IMPROVED BREEDS OF ANIMALS.—Stock Cattle of the different breeds, Sheep, Swine, Poultry, &c. purchased

to order and carefully shipped to any part of the United States—for which a reasonable commission will be charged. The following are now on the list and for sale viz: Thorough bred Short Horns and Grade Cattle

Do do Alderney do do
Do do Ayrshire do do
Do do Devons do do
Do do South Down Sheep
Do do Oxfordshire do
Do do Leicester do

Swine and Poultry of different breeds. All letters, post paid, will be promptly attended to. Adress

mh.1 AARON CLEMENT, Cedar st. above 9th st., Philadelphia.

LEWIS G. MORRIS' THIRD ANNUAL SALE, By Auction, of

IMPROVED BREEDS of DOMESTIC ANIMALS

WILL take place at MOUNT FORDHAM, Westchester Co. (11 miles from the City Hall of New York,) on **WEDNESDAY, June 9, 1852.** James M. Miller, Auctioneer. Application need not be made at private sale, as I decline in all cases, so as to make it an object for persons at a distance to attend. Sale positive to the highest bidder, without reserve.

Numbering about fifty head of Horned Stock, including a variety of Ages and Sex, consisting of PURE BRED SHORT HORNS, DEVONS, and AYRESHIRE; SOUTHDOWN BUCK LAMBS, and a very few EWES; SUFFOLK and ESSEX SWINE. Catalogues, with full Pedigrees, &c., &c., will be ready for delivery on the first of May—to be obtained from the subscriber, or at the offices of any of the principal Agricultural Journals or Stores in the Union. This sale will offer the best opportunity to obtain very fine Animals I ever have given, as I shall reduce my herd lower than ever before, contemplating a trip to Europe, to be absent a year, and shall not have another sale until 1854.

It will be seen by reference to the proceedings of our State Agricultural Society, that I was the most successful exhibitor of Domestic Animals at the late State Fair.

I will also offer a new feature to American Breeders—one which works well in Europe; that is, letting the services of male animals; and will solicit propositions from such as see fit to try it. CONDITIONS—The animal hired, to be at the risk of the owner, unless by some positive neglect or carelessness of the hirer; the expense of transportation to and from, to be borne jointly; the term of hire, to be one year or less, as parties agree; price to be adjusted by parties—to be paid in advance, when the Bull is taken away; circumstances would vary the price; animal to be kept in accordance with instructions of owner, before taking him away.

I offer the following conditions, three celebrated Prize Bulls,—"MAJOR," a Devon, nine years old; "LAMARTINE," Short Horn, four years old; "LORD ERYHOLME," Short Horn, three years old. Pedigrees will be given in Catalogues.

At the time of my sale, (and I would not part with them before) I shall have secured two or three yearly sets of their progeny; and I shall send out in August next a new importation of male animals—I shall not want the services of either of these next year. I would not sell them, as I wish to keep control of their propagating qualities hereafter.

I also have one Imported Buck, the prize winner at Rochester last fall, imported direct from the celebrated JONAS WEBB; and also five yearling Bucks, winners also, bred by me, from Bucks and Ewes imported direct from the above celebrated breeder; they will be let on the same conditions as the Bulls, excepting that I will keep them until the party hiring wishes them, and they must be returned to me again on or about Christmas Day. By this plan, the party hiring gets rid of the risk and trouble of keeping a Buck the year round. All communications by mail must be prepaid, and I will prepay the answers.

L. G. MORRIS.
MOUNT FORDHAM, March, 1852.

VERMONT.



THIS fast trotting Morgan and Black Hawk STALLION will stand the ensuing season, commencing on the 1st of April, and ending on the 1st day of July, as follows: Mondays and Tuesdays at Samuel Owings', near Triadelphia, Howard County; Wednesdays and Thursdays at Ellicott's Mills, Howard County; Fridays and Saturdays at Pikesville, Baltimore County.

Vermont was purchased at the New York State Agricultural Fair last September, for the sum of \$1000. See small bills.

TERMS: \$15 the season, payable invariably in advance.
GEORGE BURGESS.
Ellicott's Mills, March 11, 1852. Ap 1-3mo.

AGRICULTURAL IMPLEMENTS.—LABOR SAVING MACHINERY.—GEORGE PAGE, & CO. Machinists and Manufacturers, Baltimore st. West of Schroeder st. Baltimore, are now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in their line. They can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from \$85 to \$150, and each simple, strong and powerful. Their Horse Power and Threshing Machine, they are prepared to supply at the low price of \$135 complete; the Threshing Machine without the horse power, according to size, at \$30, 40, 65 and \$75; Improved Seed and Corn Planter; Portable Tobacco Press; Portable Grist Mills complete, \$165.

Horner's Prepared Animal Manure.

THE subscriber asks the attention of the farming community to the following analysis by Dr. Jas. Higgins, State Chemist, and comparison between his prepared Animal Manure, and Patagonian and Peruvian Guano. It is necessary for a full understanding of the comparison, to state, that his Compound costs but 35 cts. per bushel, or \$12 per ton.—This preparation has been used with much success on the tobacco crop, and testimonials from Mr. Reynolds, Mr. R. H. Hare, Col. Bowie, and other well known planters and farmers, who have purchased it for Corn, Wheat, Tobacco, and spring crops generally, can be produced as to its efficiency, by practical tests.

For further particulars, see advertisement in another part of this paper. dec. 1-61* JOSHUA HORNER.

LEONARDTOWN, Oct. 7th, 1851.
To Mr. J. HORNER, Baltimore.—Dear Sir:—Below I send you a statement of your Manure as to its essential valuable constituents, and the relation which it bears to Patagonian Guano. A ton of your manure contains of
Ammonia, 54 34-100 pounds
Phosphate of Lime, 528 do
The average of Patagonian Guano by the ton, as it is sold, contains of
Ammonia, 60 pounds
Phosphate of Lime, 800 do

Estimating Patagonian Guano and your Manure by the same rule as to the value of the several constituents, the Patagonian Guano would be worth \$19.30 per ton, and your Manure \$14.44. If Patagonian, therefore, be worth \$38 per ton, your Manure is worth about \$28.50 per ton.

THE VALUE OF PATAGONIAN GUANO AND YOUR MANURE, I DETERMINE BY THE AGGREGATE VALUE OF THEIR SEVERAL VALUABLE CONSTITUENTS, and by the same rule which would make Peruvian Guano worth \$46 per ton. Your Manure also contains 122 pounds of Gypsum, 114 pounds of Salts of Potash and Soda, and 300 pounds of Lime to the ton, being about equal to Patagonian Guano, of average quality, in these constituents. Very truly yours, &c.,

JAMES HIGGINS, St. Ag. Chemist.
P. S.—You can make what use you please of this.

Alderney and Improved Short Horn Cattle.

IHAVE thorough bred young Alderney BULLS, from nine to eleven months old, raised from the choicest imported stock.

Also two thorough bred young Short Horn BULLS, bred from the Bates stock, ten months old, raised on the farm of Mr. T. P. Remington, near Philadelphia, and for sale by

AARON CLEMENT,
Agent for the purchase and sale of improved stock,
mh 1-11 Cedar st. above 9th st. Phila.

JOHN FEAST, Florist and Seedsman.

279 Lexington street, Baltimore.

INFORMS the public of his superior stock of Garden Seeds, just received from England, and such as can be raised in this country are warranted of first quality; with an extensive collection of Plants, &c.,—as Roses, Camellias, Dahlias, and new Evergreens. Grape Vines, Victoria Rhubarb, Sea-kale, and Cauliflower; Egg Plants, Tomatoes, Cabbage, &c. for planting out, will be furnished on the most reasonable terms. Experienced Gardeners recommended—communications post paid. Bouquets and Flowers to order, and punctually attended to. ap 1-4t.

J. J. & F. Turner, No. 36 Pratt street,
Dealers in Guano, Bone-Dust, Flour, Grain, Feed and Seeds.

ON hand a full supply of No. 1 Peruvian Guano (parts of several cargoes), Nos. 2 and 3 Patagonian Guano of superior quality, containing a large quantity of phosphates.
ALSO—Fine and coarse ground Bone-Dust, superior to any heretofore introduced into this market; Family, Extra, and Super Flour; Grain of all descriptions; Mill Feed of every grade, from Va. and City Mills; Clover, Timothy, Orchard and Herds Grass Seeds. All of which we will sell on the best terms, and hoping by a strict attention to the wants of our friends, to merit a share of their patronage. mh 4-11

A. E. WARNER, No. 10 N. Gay st.
MANUFACTURER OF SILVER WARE, FINE GOLD JEWELRY, and importer of BEST SILVER WARE, FANCY ARTICLES, &c. would respectfully invite the attention of those in want of any of the above articles, that he keeps always on hand, and makes to order, every variety of Silver Ware, fine Gold Jewelry, and best quality Silver Plated Ware, which he will sell on the most accommodating terms. Feb. 1-11

ORANGE SEED.—Just received direct from Texas a few bushels very superior Oage Orange Seed. may 1-1t
FITZHUGH COYLE.

CHAPPELL'S IMPROVED FERTILIZER,
Or, AGRICULTURAL SALTS.

THE subscriber (successor to P. S. Chappell) would respectfully call the attention of the Farmers of Maryland to the Chemical Compound manufactured by him, for the renovation of worn-out lands, known as

CHAPPELL'S IMPROVED FERTILIZER.

The Fertilizer, as now prepared, has been greatly improved in quality by adding largely to the quantity of Bones dissolved in Sulphuric Acid, Potash and Soda. One barrel of "Chappell's Improved Fertilizer" contains as much Phosphate of Lime as is contained in 300 lbs. of best Peruvian Guano, therefore, by the application of two barrels to an acre of ground, it is supplied with as much Phosphate of Lime as if 600 lbs. Peruvian Guano had been used. It is the cheapest agent that can be used to renovate worn-out lands or restore fertility to impoverished soils.

Price, \$3 per barrel, containing 300 lbs.

Pamphlets containing certificates and recommendations, may be obtained by addressing

P. STOCKTON CHAPPELL,
165 Lombard street.

ANIMAL CARBON or CALCINED BONES.—250 barrels of this valuable manure, containing a much larger proportion of Phosphate of Lime than Ground Bones, just received and for sale at \$2 per barrel, containing 200 lbs., by

P. STOCKTON CHAPPELL,
165 Lombard street.

BI PHOSPHATE OF LIME.—Prepared in accordance with the suggestion made by Dr. Jas. Higgins in his last annual report, put up in barrels containing 200 lbs. each. Pure Bi Phosphate for sale at \$3 per barrel or \$30 per ton, by

P. STOCKTON CHAPPELL,
165 Lombard street.

Bones Dissolved in Sulphuric Acid.

HAVING every facility for Dissolving Bones in Acid, and being engaged in the manufacture of acid upon an extensive scale, I am prepared to Dissolve Bones, as directed by Dr. Jas. Higgins' (State Agricultural Chemist) 2d Annual Report, page 33, to which I respectfully refer. He there states (in speaking of the "Quantity and Cost per acre") "The proper quantity of Dissolved Bones, as near as I can know from all the information I have upon the subject, is about five bushels, to be sown broadcast at the time of sowing or planting the crop. The cost, exclusive of labor, which is but slight, will be, of

Bones, 5 bushels, 250 lbs. at 50 cts. per bushel, \$2.50
Sulphuric Acid, 53 lbs. at 2-1-2 cts. per lb. 2.07

Or, at most, five dollars per acre. This will, in every instance, if judiciously applied, produce an increase equal to the above sum in every crop for four or five years, and then leave the land much better than before the application. To those who are in the habit of manuring fields with stable manure, this quantity added will enable them to dispense with an amount of stable manure double in price to the above, make its action more permanent, and produce better crops. It should, in every instance, be thoroughly mixed with the manure before being applied. I offer this suggestion particularly to those who are in the habit of gardening in the neighborhood of our cities, and to whom the cost of hauling stable manure is very great."

The subscriber will furnish the above quantities of **Burnt Bones**, (which contain more Phosphoric Acid than Ground Bones, according to Professor Johnson's Agricultural Chemistry) dissolved in 53 lbs. Commercial Sulphuric Acid, of the strength mentioned by Dr. Higgins, for \$4.50 in bulk, or \$4.75 in barrels, guaranteed to be perfectly pure and genuine.

By purchasing the article thus prepared, farmers are saved the expense of carbons, dangers and cost of transportation, &c.

P. STOCKTON CHAPPELL,
(Successor to P. S. Chappell,
Office—165 Lombard street,

Factories—Cross and Great Hughes sts.

Ap. 1

Bone Dust.

THE subscriber will furnish ground Bones, warranted free from every mixture, or the entire quantity forfeited. Also a second quality article, composed in part of Bones, and in part of Flesh of Animals, being a quick and powerful fertilizer, at 35 cents per bushel or \$12 per ton. He has lately made such an improvement in his machinery for crushing bones, as to enable him to sell an article better than ever before offered, a sample of which can be seen at the office of the American Farmer. My Bone Dust weighs, from the manner in which it is manufactured, 55 to 60 lbs. per bushel, consequently there are 10 lbs. of Bone more than that only weighing 45 or 50 lbs. per bushel—I am, therefore, compelled to make my price 55 cents, or be at a serious loss by my improved machinery.

None of my manufactured Bone Dust is sold, except at my Factory. JOSHUA HORNER.

I furnish to my customers, when bags are not sent, 2 bushel bags, at 6-1-4 cents each.

Reference—Messrs. Randolph, Gollbart & Co., 158 Thames street. May 1-4*



Maryland Agricultural Warehouse and SEED STORE—Wholesale and Retail.

F. B. DIDIER & BRO.

No. 97 N. PACA ST., NEAR FRANKLIN, BALTIMORE.

WE have now in store and ready for sale, one of the largest and best assorted stock of AGRICULTURAL MACHINERY, FRUIT and ORNAMENTAL TREES, SEEDS, FERTILIZERS, &c. ever offered in this market, the same gotten up expressly for the spring trade—to which we would most respectfully invite the attention of our friends and the public generally.

N. B. Dr. X. Bulleno's invaluable extract, guaranteed to cure the many afflictions to which man and beast are heir to, or no charge made.

mh. 1

F. B. DIDIER & BRO.

Grant's & Bam borough's Wheat Fans.

GREENWICH, N. Y. March 4, 1852.

Mr. Samuel Sands—

DEAR SIR:—I noticed in your January number of the American Farmer, an advertisement signed John Bam borough, which is intended to mislead the public, and do great injustice to Mr. Grant. It is as follows:—*The greatest triumph yet, at the State Agricultural Fair of New York, held at Rochester, Sep. 16 to 19, 1851—Bam borough's Grain Fan received the highest honors, being a splendidly engraved Diploma. In justice to Mr. Grant and the public, I will, as one of that Committee, make the following statement of facts: The first premium of five dollars was given to J. Rappleye & Co. of Rochester, on J. P. Grant's Patent Grain Fan, that will chaff and screen wheat at one operation. The diploma, or second premium, was to John Bam borough, for his Mill, that takes two operations to clean wheat, as acknowledged by himself at that time. (Then he says again:) This was a glorious triumph for John Bam borough and Old Pennsylvania, over the best Grain Fan of New York. Now you will perceive that this is false, and not true, and you will, in justice to the Public, as well as Mr. Grant, give the above an insertion in your paper. The above report was a unanimous report of the Committee.*

Respectfully yours, WALDEN EDDY,

One of the Committee on Agricultural Implements at the above named Fair.

NOTE.—E. Whitman, & Co. are our authorized Agents in Baltimore, for the sale of our Premium Wheat Fans, to whom orders can be addressed, and will be promptly filled. J. P. GRANT & CO., New York.

ap 1-4t.

GUANO—GUANO.

500 TONS PERUVIAN GUANO, direct importation, and warranted equal in quality to any in the market. The Guano is put up in good strong bags, and is in fine shipping order. For sale in lots to suit purchasers, at the lowest market rates, by

WM. ROBINSON, No. 4 Hollingsworth st.

near Pratt st. wharf, Baltimore, Md.

Also, PATAGONIA GUANO, BONE DUST, Building and Agricultural LIME, for sale on the best terms. js. 1-4*


McCORMICK'S and HUSSEY'S REAPING MACHINES.


For sale at manufacturers' prices.
To guard against disappointment, orders should be sent in at any early day.


FITZHUGH COYLE,
National Agricultural and Seed Warehouse,
may 1-3t 7th street, Washington.

PREMIUM HYDRAULIC RAMS, Chain Pumps and fixtures complete; Cast Iron Lift and Force Pumps of every variety; Garden Engines, Green House Syringes, for sale at retail or by the dozen.

FITZHUGH COYLE,
National Agricultural and Seed Warehouse,
may 1-3t Washington City.

 **SHEEP.**—The subscriber having a larger flock than is convenient to keep, offers for sale a number of very superior Ewes, 2 and 3 years old this spring, with or without the lambs now by their side—they are $\frac{3}{4}$ and $\frac{3}{4}$ New Oxfordshire, crossed upon the Leicester, and some on the South Down breed. They are well worthy the attention of gentlemen wishing to improve their flocks, and will be sold on very reasonable terms. Address WM. JESSUP, Cockeysville, Balt. Co. Md. or apply to Mr. Sands, at the Farmer office.
may 1-5t

 **BUCK LAMBS.**—The subscriber offers for sale a beautiful lot of New Oxfordshire Ram Lambs, got by his fine Ram, obtained from the late Clayton Reybold, and was one of the choicest of his flock, out of very superior Ewes. They will be delivered in Sept. or Oct.—price \$15 to \$20. Apply at the office of the American Farmer, to Mr. S. Sands, or to
WM. JESSUP, Cockeysville P. O.
Balt. Co. Md.
may 1-5t

 **COTSWOLD SHEEP.**—For sale, Buck Lambs of the Cotswold breed—price from \$30 to \$50 each. These Lambs are out of ewes purchased from Col. Ware's celebrated flock, by one of his imported bucks. Also some mixed breeds, price \$10 to \$30. Apply to S. Sands, at the office of the Farmer, or to
THOS. HUGHLETT
may 1 Trappe, P. O. Talbot Co. Md.

 **JUST PUBLISHED—THORNBURN'S ANNUAL DESCRIPTIVE CATALOGUE OF FLOWER SEEDS** for 1852, with Practical Directions for their Culture and Treatment—will be forwarded free of charge to post paid applicants, enclosing a post office stamp.

J. M. THORNBURN & CO.
Seedsmen, Florists, &c.,
may 1-1t 15 John street, New York.

 **THE** subscribers have just received from careful collectors in Texas, a lot of fresh **OSAGE ORANGE SEED**, of very superior quality—price 75 cts. per quart or \$20 per bushel. Also, clean Buckthorn Seed, \$2 per lb., and small quantities of Norway Spruce, Weymouth Pine, Scotch Fir, European Silver Fir, Chinese Arbor Vita, &c.

J. M. THORNBURN & CO.,
Seedsmen, Florists, &c.,
may 1-1t 15 John street, New York.

PIGS FOR SALE.

THE subscriber expects by about the 1st May, a lot of PIGS from two of his fine Chester Sows—one of the Sows, now about 30 months old, took the first premium at the last State Fair—she is a younger Sow—the Pigs are by his superior Boar, which took the first premium also at the above Show—the pigs will be ready for delivery about the last of June—Price, per pair, \$10, and \$1 per box.

Also, the above named Boar, about 20 months old—price \$50. This Boar and Sows are unsurpassed by any animals in this State. Enquire of C. WARNS, Elk Ridge Landing, or to Sam'l Sands, Farmer office.
may 1-1t

FOR SALE—A DEVON BULL, of Mr. George Patterson's stock, now about 6 years old—purchased of Col. Capron—price \$100. Also a Devon Bull, 12 months old, sired by Hector, out of Fanny, also purchased from Col. Capron's herd—price \$100—and a Heifer, 18 months old, out of a very fine Devon Cow of Mr. Bailey's stock, and sired by Hector—price \$100. They are all in good order; are very gentle, especially Hector, and are sold in consequence of the present owner's health obliging him to give up farming, otherwise he would not willingly part with them. They are now at Cumberland, Md., but will be delivered in this city at the above prices. Gentlemen in the West, wishing to get into this breed, will find this an excellent opportunity, and the expense of getting them to the above point would be saved. Address S. Sands, office of the Farmer, for further particulars.
may 1

WARNER'S PATENT SUCTION FORCING AND ANTI-FREEZING PUMP, has been awarded the Silver Medal by the New York, Philadelphia, and Baltimore Fairs, which is evidence sufficient that it is the best Pump in use; by attaching pipe, one man can force water throughout the largest building. For baths, washing windows, carriages, &c. it is particularly applicable. The public are invited to call and see the Pump in operation. Price \$20 and 25.

GILDERSLERVE, HOLLINS & CO.
may 1-7t 63 S. Gay st. near Pratt, Baltimore.

To Book Canvassers in the several States.

A GREAT BOOK FOR AGENTS, to whom the sole right of sale is given—Magnificent work of History—A whole Library in itself: Cost \$11,000—1307 Pages—70 Maps—700 Engravings. Now ready, and for sale by subscriptions, a HISTORY OF ALL NATIONS, from the earliest period to the present time; or Universal History and Biography combined. In which the History of every Nation, ancient and modern is separately given,—by S. G. GOODRICH, Consul to Paris, and Author of several works of History, "Peter Parley's Tales," &c. It contains 1307 pages, royal octavo, and is illustrated by 70 maps and 700 engravings; bound in Turkey morocco. The work will not be offered for sale in bookstores, but will be sold by canvassing Agents in every county in the several states, to whom the exclusive right is given by the publishers. Invariable price in 1 vol., \$6, in 2 vols., \$7.

For full particulars of this agency apply to the subscribers. As this work is destined to have a large sale, the earliest applicants, if competent and responsible persons, will receive the most desirable territory for canvassing. Address
DERBY & MILLER,
Sole Publishers, Auburn, N. Y.

P. S. Applicants in the South-Western States will please address H. W. DERBY & Co., General Agents, Cincinnati, Ohio.
May 1-1t

ARTIFICIAL GUANO.

THE undersigned invites the attention of Farmers to a preparation of an article for the improvement of worn-out land, which he is confident, from actual experiment, will supercede the imported article, at a cost of \$30 per Ton; or for a moderate compensation, will give the necessary information, whereby every Farmer can make the preparation for himself. All letters (post paid) directed to No. 55½ Light street Wharf, will receive attention.

May 1. WM. L. BATEMAN.

2000 TONS NO. 1 PERUVIAN GOVERNMENT GUANO, in store, and to arrive this and the ensuing month. This Guano is received direct, and purchasers can rely upon its being the best—put up in strong cotton bags—for sale by the cargo, or in lots by
S. FENBY & BRO.
May 1-1t Corner Gay and Pratt sts.


WANTED a situation as a Manager and Gardener, a Practical Man, about 45 years of age, who has been regularly educated to fill the situation, and has done so for the last twenty-six years—has no family but his wife, and wishes particularly for a healthy location—The most respectable references given. Apply to
"M. M. F."
May 1-1t "American Farmer Office."

To Sheep Farmers and Wool Growers.

A GENTLEMAN with a family wants a situation where he could have the charge of a Sheep Farm and the assortment of Wool. He has had the management of a very large business in this line; is well acquainted with the diseases of animals, being a member of the College of Veterinary Surgeons, London, England. He would devote the whole of his time and attention to the interest of his employer. He is thoroughly acquainted with the breeding and management of Sheep, both fine and coarse, Saxons, Merinoes and every breed. His wife is a desirous and competent to find a situation as Teacher in a Seminary, or Governess in a family, where she could teach Music, French, Drawing, and all the branches of an English education.

Application may be made to Loney, Townsend & Loney, 11 and 13 German street; Wethered Bros., 16 German street; Kelly, Ball & Criss, Hanover street, Baltimore.
may 1-1t

RUTA BAGA.

 **JUST** received from England, per steamers Canada, 1000 lbs. Skirving's genuine Swedish or RUTA BAGA TURNIP SEED, saved from transplanted roots—price \$1 per lb. 500 lbs. Common RUTA BAGA—price 75 cts. per lb.; also MANGOLD WORTZEL, SUGAR BEET, FIELD CARROT, &c.; also, a general assortment of first rate ENGLISH GARDEN SEEDS, for sale by
SAMUEL AULT & SON,
Ap. 1-2t Corner Calvert and Water streets.

Sandy Point For Sale at Auction.

THE undersigned, prevented by engagements requiring his undivided attention elsewhere, from residing on his farm, will sell publicly, (unless previously sold privately, of which due notice will be given) at the Bollingbrook Hotel, in Petersburg, (Va.) on WEDNESDAY, the 26th day of May next, at 11 o'clock A. M., without reserve or regard to weather, that valuable, highly improved, and heavily timbered estate, known as Sandy Point, situated on James River, in the county of Charles City, Virginia, 45 miles below the city of Richmond, and 32 below the city of Petersburg.

This fine body of land contains 4,453 acres, and has been advantageously divided into four well-located farms, with dwellings, commodious barns, &c., and into five valuable lots of timbered land exclusive of an ample allotment of wood and timber for each farm.

Persons desirous of investing in lands of a quality not often in market, are invited to examine this estate.

Printed bills, giving the quantities in the subdivisions, &c. will be furnished, and accurate plats exhibited to applicants.

Possession given of the timbered lands immediately after sale, of the farms, at the end of the year, with the privilege of following and seeding wheat.

Terms: One fifth cash; balance in five annual instalments for the farms. For the timbered lands one-third cash and three annual instalments; creditor payments to bear interest and to be secured by deeds and approved endorsed negotiable notes or bonds.

R. B. BOLLING.

Petersburg, Va. Feb. 15. PANNILL & SONS, Auctioneers.

SPRING HILL FOR SALE.

ON THURSDAY, the 27th day of May, (the day after the Sandy Point sale,) we shall sell, on the premises, in Prince George County, that valuable and healthy farm, known as Spring Hill.

The property lies 6 miles below Petersburg, immediately on the Appomattox River, containing

310 ACRES,

22 acres in a high state of cultivation, the balance in wood.—The improvements are a good Dwelling, containing 5 rooms and a basement, kitchen, smoke house, stables, barn with stationary horse power, and all necessary out-houses—a fine garden, good water, with an orchard of choice Fruit Trees.

We shall offer the whole establishment, with the growing crops, viz:

100 acres in WHEAT,
54 do in CORN,
30 do in OATS,
40 do in CLOVER;

Also, the stock of Mules, Horses, Cows, Wagons, Carts, Farming Utensils, with all the provender on the place, and from 80 to 100 bbls. Corn in the crib. The whole will be offered in one entire lot, and possession given the purchaser immediately; or if preferred, the farm will be sold alone and possession given 1st January next. Here is offered an opportunity for purchasing a good farm rarely to be met with; situated on a navigable stream, high and healthy location and in a most excellent neighborhood. Any one can examine the premises by application to its present occupant, Mr. S. H. Whitmore, or to ourselves.

Terms— $\frac{1}{2}$ cash, balance 6, 12 and 18 mos. credit for approved endorsed notes, and title retained until final payment.

PANNILL & SONS, Auctioneers.

Petersburg, Va., April 24th, 1852.

may 1-11*

VIRGINIA LANDS FOR SALE.

I HAVE 2500 acres of Land on York River, more than half heavily timbered, Pine, Oak and Chesnut—the cord wood would pay for the whole estate—the shore suitable for plant ing oysters—800 acres on a branch of York River in Gloucester Co.—buildings and enclosures first rate. 1200 acres on the Rappahannock River, in Richmond Co.—most of it first rate river flats—buildings and enclosures good. Also, 400 acres, mostly wood, on Curritomion River, in Lancaster Co.—soil good; buildings good. Many other valuable estates in the tide-water counties, for sale on fair terms. Apply by letter, post paid, or in person, to

G. B. TALIAFERRO, No. 10 Bowly's wharf.

Baltimore, 1st May, 1852.

may 1-11*

JAMES MAYNES, Wool Dealer,

Warehouse No. 105 Lombard st. near Calvert, Balto. IS prepared at all times to give a fair market price for WOOL of all descriptions. He would recommend to farmers to be more particular in washing their Wool, and in getting it in good order before bringing it to market, to ensure them a fair price. The demand is good, and the probability is, that it will continue so the coming season. Those having wool to dispose of, are invited to give him a call before disposing of their fleeces. Any information as to putting it up for market, &c. will be freely given.

References—B. Deford & Co., and Wethered Brothers, Baltimore—Jas. Mott & Co., and Houston & Robinson, Philadelphia. Ap. 1-1yr

AMERICAN FARMER.

BALTIMORE, MAY 1, 1852.

THE SEASON.—The weather has been very unfavorable for all farm work during the past month. Many farmers had not got in their oats up to the last week of the month, and the preparation for the corn crop is very far behind hand. It is to be hoped, that when the weather does become settled, we shall have a continuous favorable season. Our accounts of the appearance of the Wheat continues anything but favorable.

SHINNEY AND COW PEA.—We have received from Rd. Peters, Esq., of Atalanta, Geo. a few Peas, which he says is a variety of the Cow Pea, and that a friend of his considers it superior to any other in the world—it is represented as very prolific, and on the bunch order, not a runner—It is not like the Cow Pea we have seen, neither in size or color—but resembles more the Shinney Pea, of Carolina, with which Mr. Peters says he has pronounced it identical.

Selling Potatoes by weight and measure.—The difference in the measurement of potatoes, as shown by Capt. Clough, (see page 387) shows the necessity of the passage of the bill now before the legislature, recommended by the State Society, for the sale of such productions by weight instead of measurement.

Guano Island.—A discovery is said to be made of a new Guano Island in the South Pacific Ocean, which is causing considerable speculation in the commercial circles of London, as we learn from the London Shipping Gazette.

Answer to Mr. Mullikin's enquiries, and others, in type, but crowded out.

REPORT ON DOMESTIC WINES, BOUNCE, AND CORDIALS.—The Committee on the above named articles have carefully performed the duty assigned them, and beg leave to report the following awards:

For the best home-made Wine, they award the premium of \$3 to Mrs. Jno. L. Griffith of Harford.

For the best bounce, to Mrs. Meyers.

For the best cordial, to Mrs. Wm. C. Glenn, and to Mrs. Jno. Merryman, Jr., an *ex equo* pre. of \$3.

There also came under the notice of the Committee some admirable specimens of Wines made from native grapes, by Messrs. Jno. Boyd & Son, but as these are manufactured largely for commercial purposes, the Committee does not consider that they were entitled to be brought into competition with the productions of private housewifery, and therefore, they have not awarded any premium for them.

RICHARD L. NICOLS, JOHN C. WALSH,
THOMAS S. IGLEHART, THOMAS M. SMITH,
GEORGE E. BROOKE.

[The above report was made to the Maryland State Agricultural Society, last Fall, but being written in the book of entries, it was overlooked at the time of the publication of the other reports, and our attention has been more recently drawn to the omission.—*Editor Farm.*]

THE CULTURE OF THE IRISH POTATO.—A correspondent at Easton, Md. asks us for the most approved mode of cultivation of the Potato in the Eastern States, where it is grown so successfully.

In reply, we would remark, that the people o

New England grow the Irish potato in the same way that our farmers do—they apply the same kinds of manures as do our people—some plant the sets in the row first, and then apply the manure over them, while others put the manure in first, and place the sets on top of it—some plant in hills, while others plant in rows. But none succeed now in growing any thing like the crops grown some years back, as a general thing. The reason why the New England people grow more potatoes than we do, is, that they grow them as a *crop*, while we go in for a *patch*.

We believe there have been very few seed potatoes from the Eastern States, in our market this year—the supply has been principally from Jersey.

MANURE FOR CORN, SALT FOR SWEET POTATOES.—A Correspondent in Warren Co. N. C. asks the following questions:—

"I have just finished preparing a very poor piece of up-land for Corn, and have prepared a compost as follows, 200 lbs. Peruvian Guano, two bushels unleached hard-wood ashes, one bushell ground salt and half bushel ground plaster, well mixed together.

"This quantity per acre was applied and immediately ploughed in.

"I was induced to incorporate the ashes, knowing they were a good manure for the Corn plant, but am now fearing the propriety of this, as there was a very strong gas, much resembling hartshorne, which formed, and appeared to escape rapidly while mixing. I have no knowledge of chemistry, and therefore cannot tell whether this apparent evaporation was for weal or for woe. (1)

"Will you please to inform me, and at the same time say what is your opinion of this compost as a manure for Corn, also whether it would answer for Tobacco. (2)

"I think of trying on a small scale, salt alone upon poor land as a manure for sweet potatoes." (3)

Reply by the Editor American Farmer.

1. We do not think the gas which escaped will operate disadvantageously, but it would have been better to have broadcasted the ashes over the land after the guano, salt and plaster had been ploughed in.

2. We think the manure applied, well suited either for Corn or Tobacco.

3. We should prefer to treat our sweet potatoes to some nutritive or organic manures, that to relying entirely upon salt for a crop, unless the soil was naturally tolerably good. Salt would furnish soda and chlorine, the inorganic substances essential as component parts of vegetable food, it also would by its power of attraction and absorption appropriate the gases of the air as food for the plants it would also maintain a healthful degree of moisture, and thus aid in carrying on a continuous decomposition of any vegetable remains in the soil; but, of itself, we apprehend, it is not competent to produce a good crop of anything. We have repeatedly used salt as an auxiliary, in quantities from two to six bushels to the acre, with decided advantage, but we should be loath to trust to it alone for a crop.

BONES—ASHES—SALT.

HAGERSTOWN, MD., March 11, 1852.

To the Editor of the American Farmer—

DEAR SIR:—I am about preparing a mixture to put upon my corn, and wish to have your advice in the matter. I intend to dissolve bones in sulphuric acid, and mix with unleached wood ashes; and what I want to know is, whether the addition of

common salt would benefit the mixture, and to what extent. And I would also like to know whether the ashes of Cumberland coal possess any virtues as a fertilizer. If you can answer the above questions in the next No. of your very valuable paper, you will much oblige

Your humble servant,

GEO. F. HEYSER.

Reply by the Editor of the American Farmer.

The addition of salt would, to the extent of its soda and chlorine, be of service, though we think its application in the way proposed unnecessary, as in the ashes both soda and chlorine exists.

With regard to the question as respects Cumberland coal ashes, we would remark, that we believe all coal ashes to be excellent manures. We have used the ashes of Anthracite coal with the best results, and we cannot see why those made from Cumberland coal would not prove equally good.

SCHUYLKILL LIME.

To the Editor of the American Farmer.

Your paper affords the most opportune means of allowing me to rectify an error which occurs in a letter of mine published in the "2d Report of the State Chemist." It may be either a typographical omission, or proceed from a careless revision of my letter to Dr. Higgins, which was not written with a view of publication.

After speaking of the causes which induced me to give the preference to Schuykill lime, the manner of slacking and applying it, I proceed to state the results of the application, as follows: "The greatest product of this field within my recollection, under the most favorable circumstances, was but little over 600 bbls. Now, although the last crop on this, can scarcely be considered more than two-thirds of an average crop, so far as I can learn, I have the pleasure to inform you that my field yielded seven hundred and eighty barrels." As it thus appears, the statement is rather incongruous. The omission of the word *Shore*, immediately following "this," alters the sense. It was an admitted fact that the corn crop of that year (1850) on *this Shore*, was but little more than half a crop, whilst the product of my field was certainly more than its average crop.

As the published statement has caused enquiry among those personally acquainted with me, I deem it proper to correct the error, in order that others who feel an interest in the subject may not be misled.

Respectfully yours,

WM. HENRY DECOURCY.

Cheston, April 23d, 1852.

GUANO APPLIED TO TOBACCO.

In your last number you say 400 lbs. Peruvian Guano is the proper quantity to be applied per acre for Corn and Tobacco. I think you are right with regard to the former, but in my opinion it is entirely too much for Tobacco. I have been experimenting in a small way with Guano for a few years, and think 200 lbs. enough for Tobacco; it is true 400 lbs. will grow a heavy crop, but it will spot in the field before it ripens, became full of holes presenting a honey-comb like appearance, cure dull and bring a low price in the market, whereas land "in fair life" with an application of 200 lbs. to the acre will grow a fair crop, it will ripen early, cure well, and command a fair price in market. I will merely add my land is a sandy loam, the right kind for Tobacco.

E. G.

We hardly think that the spotting was produced by the addition of 200 lbs. of Guano.—*Editor.*

FLORAL DEPARTMENT.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

Owing to the lateness of the season, many things which should have been attended to last month, will have to be looked to now;—such as preparing the borders for sowing all seeds in the open ground, now the planting is finished, except what is put out of pots; to ornament the grounds, with such of those that flower most of the season; and many of the greenhouse plants that are showy, should be put out, such as *Chinese Hibiscus*, *Erythrina*, *Salvia*, *Heliotropes*, *Verbenas*, *Fuchias*, and many others that flower through the summer, and have to be taken up in the fall, and kept in the greenhouse all winter.

Plants this month should be brought out of doors, except some of which the wood is yet tender, as *Camellias*, and others which require the wood to be matured before exposing to the sun. Have the plants put in a suitable situation, and protected as much as possible for the summer season. Many plants are lost for want of a proper place to keep them, which ought to be obviated with but little care.

Tulips and *Hyacinths* will be blooming, and require to be tied up, and would be better if shaded from the mid-day sun, by which they keep in bloom much longer.

Dahlias plant out the middle of the month, or earlier, if wanted to flower the early part of summer; but some prefer planting out in June, as they generally make a better fall bloom.

Roses of the monthly and other tender sorts, may be turned out of the pots into the borders.

Pansies may be transplanted in the borders, and seeds may be sown now for a succession of plants.

Ericas, *Epacris*, and such like plants, place in a rather shady situation, to enjoy the morning sun, and cover the pots over with moss, to prevent the sun from injuring the roots, which is so destructive, and kills them, when not kept in a cold frame, facing the north, which is by far the best method of protecting them through the summer—Now is a good time to propagate some from cuttings.

Cactus will begin to show buds, and require to be watered more freely; have them neatly tied up and attended to.

Calceolarias repot in good sized pots, and keep clear from the fly by smoking and syringing.

Chinese Primroses.—Be sparing of water to these, and sow the seed from the good varieties if ripe, which might be sown this or next month.

Geraniums will now be in flower; give plenty of water and air, and keep them clean.

Box edging may yet be planted, and plant out all young plants of *Evergreens* for the summer season.

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Reported for the American Farmer by J. W. & E. Reynolds.

There has been more doing in the Tobacco market since our last report, and the prices are a shade better, although the better sorts are lower than they have been before for many years, (1846 always excepted.) We have therefore a right to expect a rise at least in the better sorts, and we shall be much disappointed if such is not the fact, particularly when we reflect, that, the order for France must be executed this year, and to a larger extent than usual.

We quote common dark crop and seconds at \$2½ to \$3½; good crop, \$4 to 5; good and fine reds, \$5½ to \$8; ground leaf, \$3 to \$7½, as per quality.

Wheat—Prime red, 93 to 95c; white wheat at 98c. to \$1.03. Corn, white, 56 to 57c; yellow, 57 to 59. Oats, 37 to 40c. Rye, 78 to 79.

Cattle, beef, \$4 to \$4½ on the hoof, equal to \$8 a \$9½ net, and averaging \$4½ gross—430 head were offered on Monday, of which 90 were driven to Philadelphia, 50 left over, and the balance sold to butchers—Hogs, \$7½ a 8—Flour, Howard st. \$4.06 a 4.12; City Mills, \$4½—Whiskey, Pa. and Balt. bbls. 22c.; hhds. 21.—The Provision market is firm, and fair sales are made—Mess Pork \$19—bacon shoulders and sides 9 a 11c.—Cloverseed, \$4½—Hay, baled, \$18 a 19 per ton; in bulk, \$14—Straw, \$12 a 15—Plaster, \$3 a 3.50 per ton—in bbls. \$1½ a 1.37—Molasses, N. O. 24 a 29c; Cuba, 16½ a 19; P. Rico, 22½ a 26½—Sugars, in steady demand: N. O. inferior to choice, \$4 a 5½; Cuba, \$4 a 5½; P. Rico, \$4 a 6½—Wool, tub washed, 26 a 28; unwashed, 16 a 19c.—Cotton, mid. to fair Va., Georgia and Gulf, sales last week of about 550 bales at 8c. cash, to 9½c. 6 mos., which is an advance, and a better feeling is evinced—Fish, Mackerel, No. 1, \$9½ a 10½; No. 2, large, \$8½ a 9, small 5½ a 6½; No. 3, large, \$6.37 a 6.62; small 5.37 a 5.62; Shad, scarce, and but few have reached market, the price of which is \$10—Herrings, receipts light, sales \$5 a 5½ for full bbls.

Guano, the supply is ample, and receipts regular—the demand is fair, for the season; we quote Peruvian, for 1 to 10 tons, \$45; 10 to 50 tons, \$44; 50 tons and upwards, \$43. Patagonian, 1 to 10 tons, \$33; 10 to 50 tons, \$31 a 32; and 50 to 100 tons, \$30—all per ton of 2000 lbs.

Baltimore Tobacco Trade.—It will be seen by our report of the Tobacco market that a very heavy business has been done in Ohio Tobacco within the last three weeks, the sales reaching the large aggregate of 4500 hhds. The great bulk of these purchases was made in fulfilment of the contract between the French Government and Messrs. Rothchild. The whole quantity actually contracted for is about 5000 hhds., with the stipulation that the quantity may be increased at the discretion of the Government one-third more. As the French Government took none last year, and the contract this year was made at very low figures, it is not improbable that the excess stipulated for will be demanded. The average cost of this article is about forty-two dollars per hogsheed, so that the value of the purchases of Ohio Tobacco, above stated, is about \$190,000.—*Balt. American*.

2000 Acres of Roanoke Land For Sale.

THE subscriber having a much larger quantity of land than he can cultivate, and wishing to have some neighbors who may be disposed, like himself, towards agricultural improvement, would sell upon advantageous terms, from 1 to 2000 acres of the well known land of Roanoke River. This quantity would make two good plantations, and might be so divided. To those who may not be acquainted with Roanoke lands, they may be described as being very similar to the best lands of the Upper James River—they consist, 1st, of fine chocolate colored "low grounds," admirably adapted for wheat, corn and clover, lie immediately on the River, and are from ¼ to ¾ of a mile wide. These low grounds are all of pure alluvial soil for several feet deep, and are as near being inexhaustible as any lands can be. In rear of these are the "second low grounds," lands, very similar in color and general characteristics, but not so rich in alluvial deposits—they are equal to any lands in the U. States for wheat, clover and the grasses, 31 1-4 bushels per acre were measured on 100 acres after a horse gathering; they are also well suited for Cotton, 12 and 1500 lbs. per acre having been made on lands adjacent and every way similar to those of the subscriber,

(who does not cultivate cotton.) The natural growth of these lands is composed of the Black Walnut, Tulip, Hickory, Ash, Oak, &c. Still further from the river, lie the "Uplands"—these are greatly inferior to the low grounds, but produce corn and cotton well, and possessing a fine clay subsoil, when limed produce wheat and the grasses to advantage—their timber growth is Oak, Hickory, Dogwood, &c. The lands run up to within about 7 miles of the point where the Petersburg Railroad and the Norfolk Railroad cross each other; both are laid with heavy T iron, and afford a choice of markets. The river affords a navigation for 8 months of the year, and the subscriber has loaded a sea-going vessel with 6600 bushels of corn in one cargo.

A large portion of the land has been improved by Lime, Clover and Plaster.

There is a new Dwelling House with 8 rooms, new kitchen, new brick smoke house, 40 feet by 20, and a number of frame negro houses. Also, a very extensive Water Power, with a Mill 64x30 ft. running 2 sets of mill stones, a Wheat Thrasher, Chaffing Fan, Elevator, and all the requisite machinery for cleaning wheat; Corn and Cob Crusher, &c. Saw Mill, both circular and up and down saw, &c.

The fall diseases, which formerly so greatly injured the value of lands in this region of country, have for the past 2 years almost wholly disappeared, and its healthfulness can now be fairly compared with any portion of the U. States, inflammatory diseases being almost unknown.

The price of the land is \$12 per acre for the entire tract, with a payment of one-fourth in cash, the remainder in 2, 4, 6 and 8 years, if the security is satisfactory, with interest.—These lands are well known to Mr. Sison Robinson, a well known agriculturist, and to Mr. Obed Hussey of Baltimore—they will be shown by visiting the subscriber in the town of Jackson, N. C., 9 miles south of Garysburg, on the Petersburg and Roanoke Railroad. Apply also to Samuel Sands, Esq., Editor of the American Farmer, or by letter, to

Feb. 1-1f

H. K. BURGWIN, Jackson, N. C.

EMORY & CO'S.

OVERSHOT THRESHING MACHINE,

WITH VIBRATING AND REVOLVING SEPARATORS.

Although over two thousand of these Thrashers have been sold by us up to this time, and without exception have given the fullest satisfaction as heretofore made, we can safely say they are, as now made, worth at least fifty per cent more than heretofore, and without any increase in prices being charged for them.

Their construction is such that the grain and straw are carried by the cylinder from a level feeding table, over and between it and the concave, which is placed above instead of below as is generally done in others. The cylinder being 36 to 30 inches long, and 14 inches diameter, are much longer but smaller than those generally in use—giving more room for feeding, in proportion to work done, and doing it nearer the centre of motion, and working easier, as the smaller the diameter the greater the power. Again, we require but about half the number of spikes in the cylinder, and an increased motion, so that the spikes may pass through with a velocity sufficient to take off the grain.

The concaves have an increased number of spikes, which for both cylinder and concave are swaged into uniform shape and size, from the best Swedes Iron. They are set with an inclination which admits the straw and grain to pass freely, and with as little breaking of the straw as is consistent with the separation of the grain—thus producing a sort of stripping or carding process. The concave is so confined as to be readily adjusted and present any desired angle of the throat, thereby retaining the straw a longer or shorter space of time in passing, as the condition and kinds of grain may require. By this arrangement, there is a saving of power of from 30 to 50 per cent. over the ordinary Thrashers, whose spikes pass each other at right angles, which operation necessarily breaks the straw into many pieces, at the expense of much power—a process much more easily done with a good hvy cutter with sharp knives, than with the rounded edges which well formed spikes present to the straw. The feeding-table is level, allowing the feeder to stand upright and be little annoyed by dust, dirt, &c.; the over-shot motion avoids accidents to men or machine, (by preventing any stones, sticks, &c. getting into it in feeding,) which frequently occur with the inclined feeding board. The grain by this motion is elevated sufficiently to be thrown upon a large sieve or separator, where it is separated from the straw and falls through upon the ground or floor, together with the fine chaff, dust, &c., while the straw is discharged at the end of the separator, ready for stacking or binding.

The Shafts of our cylinders are made of solid cast steel, manufactured and imported for us expressly for the purpose; and all the boxes or bearings are made of or lined with Bab-

bet metal. The boxes used by us are always of two parts, in order to be adjusted as they may wear, or to vary the position of the cylinder, as well as to allow them to be removed, if necessary, for cleaning or repair, without removing the pulleys or other parts of the machine. This is an important advantage over those boxes which are made of a sort of tube, and only removed by first removing the pulleys, &c. &c., and are never adjustable to accommodate themselves to any wearing.

The Pulleys are polished and fitted to both ends of the shafts, and confined by nuts and screws, and with our India rubber band, which we invariably use, form a perfectly airtight connection; thereby bringing the atmospheric pressure to our aid, and preventing any slipping of the band. A band of this kind, say 30 feet long, and 3½ inches wide, will drive equally strong when four inches looser than if made of leather, causing less stress upon the shafts, allowing them to run with less friction and wear on both sides and boxes.

CLEANER AND THRESHER COMBINED.

During the past three years we have spared neither time or money in endeavoring to produce at one and the same time, a CLEANING THRESHER, which will perform as well and as rapidly as our Thrasher and Separator, with the same force of men and team to operate it, while the increased combinat on should not exceed the value of a good farming mill, (say \$25 to \$30.) During the past two seasons we have succeeded to our entire satisfaction in all respects excepting cost of construction, the increased expense of manufacturing being some fifty to seventy five dollars, and bringing the price fully up to that of Pitt's celebrated Patent Thrasher and Cleaner, which has been extensively and favorably known throughout the whole country for the past fifteen years; and when adapted for two horses, well made, and driven by two horse power, will do as well as any other now in use, our own not excepted, setting aside perhaps something in quantity of work done.

The great excess of the demand being for our Thrashers and Separators instead of Cleaners, we are compelled to confine ourselves and facilities chiefly to the former, making Cleaners only to order, and at the price of one hundred dollars each, instead of seventy-five, as heretofore advertised by us.

From our own observations, and the slow adoption of the Cleaner combined, when used by farmers with barns for their own purposes, we would not recommend them on the ground of economy, as the grain can generally be thrashed better and faster with the Separator; and the simplicity of the one as compared with the other, together with the difference in skill required in those attending both kinds, is vastly in favor of the Thrasher and Separator. Those farmers using their straw for feeding, or selling in market, find it much more valuable when thrashed with the Separator. It is entirely free from dust, dirt and fine chaff which is mixed thoroughly through the whole mass by the current of air thrown from a Cleaner.

In field threshing and where time is of the greatest consideration, and where there is risk from exposure to weather, the straw of little value, large Cleaners, with more men and horses, are preferable.

For testimonials concerning the utility and superiority of our Thrashers and Separators, and also our Improved Rail Road Horse Power, we refer the public to the following persons from among the many to whom we have recently sold them, and taken in exchange the Wheeler Powers, Thrashers, &c. at a discount in favor of our own, of from five to fifty dollars each; and in nearly all cases, they are being used for public threshing.

HOW J. M. SHERWOOD, Auburn, N. Y.
JNO. McD. McINTYRE, Esq., Albany, N. Y.
JNO. N. ROTTIERS, Esq., LaFargeville, Jeff. Co., N. Y.
H. L. STEWARTS, Root, Albany Co.;
JACOB LANSING, Greenbush, Rochester Co.;
REUBEN YOUNG, Berne, Albany Co.;
—SMITH & CO., Canajoharie, Montgomery Co.;
—DETMAR, Canajoharie, Montgomery Co.;
—DEIVENDORF, Fort Plain, Montgomery Co.;
E. STILWELL, Fort Plain, Montgomery Co.;
COOPER & WOODRUFF, Watertown, Jefferson Co.;
JNO. A. DUNN, (Saratoga and Whitehall, R. R.) Saratoga;
JOHN POST, Romeville, Oneida Co. N. Y.;
ELA MERRIAM, Leyden, Lewis Co. N. Y.
J. C. COLLINS, Con-tableville, Lewis County, N. Y.;
RUSSEL KILBOURNE, Paris Hill, N. Y.;
Wm. H. CHALMERS, West Galloway, Saratoga Co. N. Y.;
PETER WEBER, Herkimer Co. N. Y.;
W. D. MASON, Jefferson, Ohio;

May 1-1f. 369 and 371 Broadway, Albany, N. Y.

OSAGE ORANGE SEED—For sale at this office. may 1-1f

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Particular attention will be given to orders for Threshing Ma-
chines, Wheat Fans and Reaping Machines, &c.



Maryland and Pennsylvania State Fairs,

HELD IN OCTOBER, 1851.

These Fairs being open to competitors from all parts of the world, brought together the largest display of Farm Implements ever witnessed in this country, among which were to be seen Implements from all parts of the United States. After several days strict examination, the following awards were made, viz: by

The Maryland State Agricultural Society to

E. WHITMAN & CO.

Certificates of Pre-eminence for their WROUGHT
IRON RAILWAY HORSE POWER and Bamborough
Wheat Fan, being the Society's HIGHEST hon-
ors, they having taken the First Premiums THREE
successive years. \$20

For the Largest and Best Display of Use-
ful and Valuable Agricultural Implements, \$30

For the Best Portable Hay Press, 25

" " Farm Wagon and Harness, 13

" " Cart and Cart Gear, 9

" " Portable Smith's Forge, 6

" " Corn and Cob Crusher, 5

" " Butter Churn, 4

" " Corn Sheller, 4

" " Plow, 5

" " Hydraulic Ram, 3

" " Chain Pump, 2

" " Hogs Trough, 3

" " Drain Tile, 2

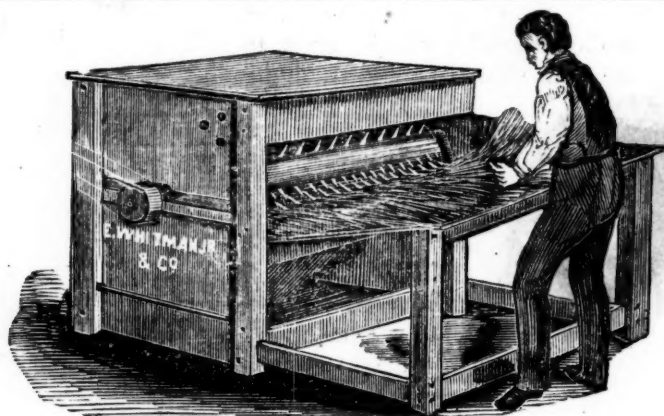
For Premiums in Ploughing Match, 14
The Pennsylvania State Agricultural
Society, at Harrisburg, awarded to
E. Whitman & Co. the following
Premiums, viz:

For the Best Portable Hay Press, \$20
" " Sweep Horse Power, 10
" " Reaping Machine, 10
" Largest and Best Display of Useful
and Valuable Agricultural Implements, 20

The Maryland Institute, in 1851, awarded
to E. Whitman & Co. for their Iron
Cylinder Thresher and Wheat Fan, a
heavy Silver Medal.

The above result shows conclusively, that their
implements are regarded as being the best and
most valuable, the amount in premiums being three
times as much as any other Exhibitor of Imple-
ments at this Fair.

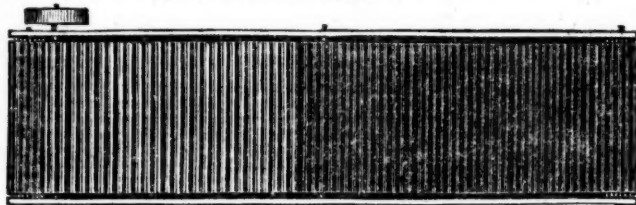
We publish the above awards that those who de-
sire to purchase the best, latest improved, strongest
and most valuable Farm Implements, at the lowest
prices, may know where they can be had. Our
Stock the coming season will embrace all of the
above Premium articles, and a greater variety of
Farm Implements, Machinery, Seeds, Fertilizers,
&c. than was ever offered for sale in this country.



E. Whitman & Co.'s Premium Iron Thrasher, the cylinder of which will last 100 years in constant use.

It is a common remark by those using this machine, that no man would use any other if he knew the great advantages of these. We have recently made an improvement in the teeth or spikes of this machine, which adds very much to its strength and durability, and can now recommend them to do more work with the same amount of power, and that they are more durable, will break less grain and thresh cleaner than any other machine made in this country.

Prices—20 inch, \$45; 24 in. \$50; do. extra heavy, \$60.



The above cut represents the Straw Carrier detached from the Thrasher. It may be attached in less than ten minutes time, by bolts and hooks which go with the machine.

This is a simple fixture, which saves the labor of some two or three hands, and will separate the grain from the straw more perfectly than it can be done by hand. Additional price, with Straw Carrier, \$15, \$18 and \$20.

E. WHITMAN & Co.'s PREMIUM WROUGHT IRON RAILWAY HORSE POWER,

Which has received *all* the premiums that have ever been awarded to Railway Powers of any description by the Maryland State Agricultural Society. We mention this fact that farmers, who read and are told of other Railway Powers which received Premiums, and the highest honors, awards, &c. of the Maryland State Agricultural Society, may know how much confidence can be placed in other parts of such publications, as it will be seen that this part is entirely false, no other machine of this kind ever having taken a premium of *any* grade from this Society; and as large numbers of machines have been exhibited from other States, it shows the superiority of our Horse Power over all

others, having been thoroughly tried by the different Committees of practical men for 3 years in succession, when the following awards were made, viz:

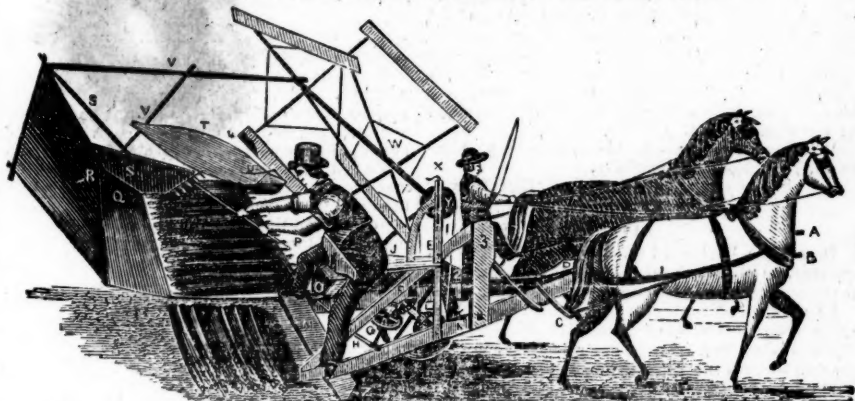
- 1849—First Premium of the Maryland Agricultural Society, to E. WHITMAN, for his Wrought Iron Railway Horse Power, \$10
- 1850—First Premium of the Maryland Agricultural Society, to E. WHITMAN, for his Improved Wrought Iron Railway Horse Power, 15
- 1851—To E. WHITMAN & Co., by the Maryland Agricultural Society, for their Improved Wrought Iron Railway Horse Power, a Certificate of Pre-eminence, over all others.

WHEAT FANS.—We are agents for the sale of GRANT'S WHEAT FANS and CRADLES, and can furnish them Wholesale and Retail.

M'CORMICK'S WORLD'S FAIR PREMIUM REAPER,

For Sale by E. WHITMAN & CO., BALTIMORE.

Price of Reaper, \$125; additional price, with Mower, \$30.



THE great success and favor which this Reaper has received in Europe and other parts of the world, has caused other manufacturers of Reapers to resort to a variety of means to destroy its great popularity and value. In the State of New York, Messrs. Seymour & Morgan undertook to destroy its value by infringing the patent, but suit was brought against the parties so infringing, in the United States Court, and the decision of this tribunal was a judgment rendered against the infringing parties and in favor of Mr. McCormick for a sum upwards of \$17,000.

Another manufacturer undertook to destroy the popularity and value of this invention by attempting to show that it was not entitled to the great "Council Medal" at the "World's Fair," and that it was all a "humbug," and many garbled extracts are made and published from English prints as if to prove this assertion.

We do not deem it necessary to reply to any of these strained and garbled efforts to destroy the success of this Machine, as the inventor is perfectly willing to sell and warrant this Machine superior to any other invented in this or any other country—and for the satisfaction of those wishing to purchase Reapers, we annex a guaranty under which this Machine will be sold the coming season by
E. WHITMAN & CO. Balto. Md.

The following are the terms upon which the Reaper will be sold the coming season:

Mr. C. H. McCORMICK will please manufacture for the undersigned, and deliver at the warehouse of E. WHITMAN & Co., Baltimore, Md., on or before the day of
1852, one of McCormick's last improved Patent VIRGINIA REAPERS, (including 3 fingers, 3 sections of sickle, and the pinion extra,) for which the undersigned agrees to pay, on delivery of the machine as aforesaid, the sum of Forty Dollars cash, and his note with responsible city endorser, for the further sum of Eighty-five Dollars, payable on the

first day of November thereafter, with interest from the first day of July, 1852. Said Reaper is warranted to cut one and a half acres of wheat or other small grain per hour, and to save at least three-fourths of all the wheat scattered by ordinary cradling, to be well made, of good material and durable, with proper care, and that the raking of the wheat can be well done by a man riding upon the machine.

If upon a fair trial, to be made next harvest, said Reaper cannot perform as above specified, and shall not be as above represented, the undersigned will lay it aside, and store it safely, and redeliver it to C. H. McCormick, or his agent, subject to refunding the money and note above described.

Post Office Address.

A Mowing apparatus can be attached to these machines at an additional cost of \$30.

This machine operates with a *Sickle Edge and Reel* combined with a seat or stand for the raker, so that the grain is delivered at the side of the machine, and the binding made entirely independent of the cutting.

It is simple, of light draught, and will cut from one hundred to three hundred acres of grain without a second grinding, and is warranted superior to every other Reaper in all kinds of grain and grass, whether tangled and lodged, or otherwise.

That the Sickle is the "true cutter," and that the Reel is indispensable to the successful operation of the machine through the harvest, no longer admits of a doubt. These facts being attested by the thousands of these machines now in use—sold by ourselves and others infringing on McC. patents,—while a comparatively small number of machines known as "Hussey's Reaper," with a smooth and very abrupt edge, and without a Reel, are in use.

The following are a few of the many certificates which we have received:

Chaplico, July 17, 1851.

Messrs. E. WHITMAN & Co.

Dear Sirs:—Yours of the 10th, concerning my success as to McCormick's Reaper, I have just received, and in answer say, that so well satisfied am I with it, that if I succeed in sowing such a crop as I anticipate this fall, I shall order another next spring. A more simple operating and perfect machine for the purpose intended, I have not seen. Having a tolerable knowledge of machinery for a farmer, I was enabled to get my machine to work without any other assistance than the directions sent, and having a little practice, was fully master of her management.

Wishing him success in his undertaking, I remain,

Yours respectfully,
(Signed) LUKE W. B. HUTCHINS.

Chaplico, July 18, 1851.

Dear Sir—Enclosed I send you my draft, as requested, on Messrs. Neal & Luckett for \$85, which is the amount due for McCormick's Reaper.

I feel much pleased with that article; I saved my entire crop with it, and it gave full satisfaction.

I was taken sick the first day of harvest, and remained so until the day previous to finishing. The Reaper, of course, had to be conducted entirely by servants, and yet I believe saved grain enough over and above what cradles would have saved, to pay fully half the price of said Reaper, and that in a crop of from 1000 to 1200 bushels.

Yours respectfully,
(Signed) EDW'D. S. T. MADDOX.

St. Mary's County, Md., August 20, 1851.

Extract of Mr. H. J. Carroll's letter—speaking of McCormick's Reaper, he says:

"I used the ordinary sized horses, and cut an hundred or more acres of heavy wheat in six and a half days. I believe the machine will cut as much wheat as twelve cradles, if the straw is heavy. It will cut as much as eight in ordinary size straw, the latter I tested, I think fully—however, the machine will do as much as Mr. McCormick states it will do, and do it well.

It has one great advantage over other machines of the kind, it can be used as well in windy weather as calm.

I believe my machine has fully paid for itself this harvest." Very respectfully yours,

Signed, H. J. CARROLL.
E. Whitman & Co. Balto., Md.

Hon. Wm. D. Merrick, in his letter of 18th July, 1851, says:

"You ask my opinion of McCormick's Reaper, and in reply I must say, I esteem it as one of the most valuable of the many labor saving inventions of the age and time.

It was late when I received this reaper, my harvest being more than half over. I still had however, several thousand bushels of fine wheat to cut, and it was immediately set to work. Its performance was admirable, and it was seen, approved of and commended by a number of gentlemen of the vicinity whilst at work in my fields.

I worked it for five days continually, and until

my wheat was all cut—during which time I estimate its saving to me in hands, wages, provisions, and wheat, from the perfect manner in which it was cut—at certainly not less than twenty-five dollars per day, (it may have been much more), and the Reaper is now nearly as good and as serviceable as the day it was put to work."

I am, sir, very respectfully, yours,
Signed, Wm. D. MERRICK.
Messrs. E. Whitman & Co. Baltimore, Md.

Mt. Calvert, July 16th, 1851.

Messrs. E. WHITMAN & Co.

Gentlemen:—I received your favor of the 10th inst. by yesterday's mail, in regard to McCormick's Reaper, and in reply, have to inform you that we are much pleased with it, and received considerable aid in our harvest field from it.

To test its powers, we had a circle in the field made by an active cradler, which took him one hour and ten minutes to effect, and the Reaper followed around the circle in six minutes, thus showing she did the work of eleven cradlers. This was in tall and heavy wheat, which suits the Reaper best.

Yours respectfully,
(Signed) JOHN BROOKS.

Wye Mills, P. O.

Extracts from a letter to E. Whitman & Co. in relation to McCormick's Reaper.

Skipton, July 16th, 1851, E. Shore.

Dear Sir—Your favor of the 10th inst. was received a few days since, and in reply, have to say, that I am perfectly satisfied with the performance of McCormick's Reaper.

I found that two males could carry it with perfect ease in my best wheat—I used three however, most of the time, merely to steady the pole, and prevent it from pressing upon the mule on the side nearest the wheat.

I cut fifty-two acres in about thirty hours working time. The only difficulty I experienced was from breaking the socket by which the driver is attached to the sickle.

By paying some little attention to this matter I think Mr. McCormick need fear no competition with his Reaper, for it certainly is, according to my humble judgment, decidedly the best in use, all who saw the machine at work in my field were delighted with it.

I prefer it greatly to Hussey's, and shall keep the one I purchased of you."

Very respectfully, yours,
Signed, T. HOPKINS, Jr.

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